QUARTZ SYNTHESIZER AM-FM STEREO TUNER

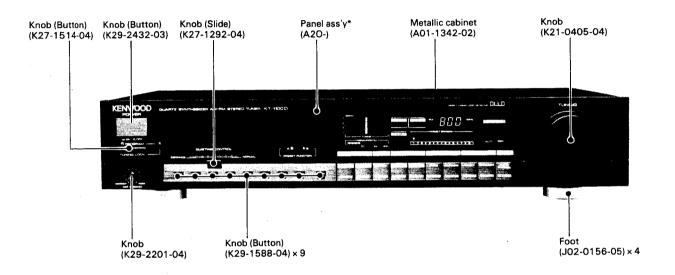
KT-1100D

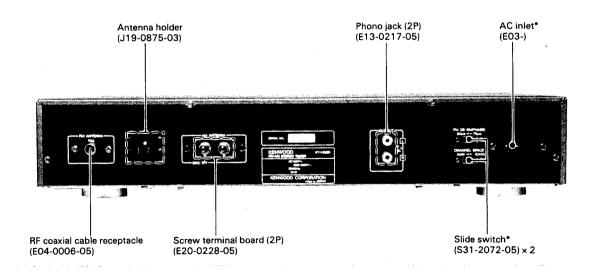
SERVICE MANUAL

KENWOOD

KENWOOD CORPORATION

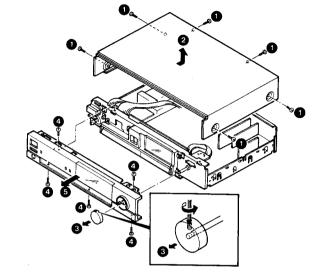
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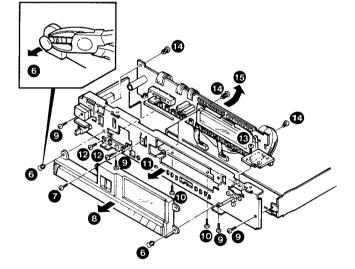


DISASSEMBLY FOR REPAIR

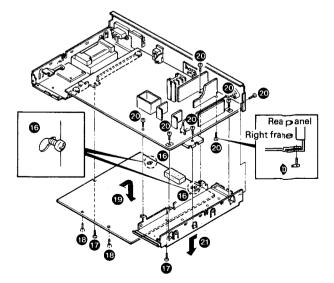
- Remove the 6 screws on the metallic cabinet.
- 2 Remove the metallic cabinet in the direction of the arrow.
- **3** Loosen halfway the set screw of slotted head on the knob, then remove the knob from the front panel.
- 4 Remove the 5 screws on the front panel.
- **6** Remove the front panel in the direction of the arrow.



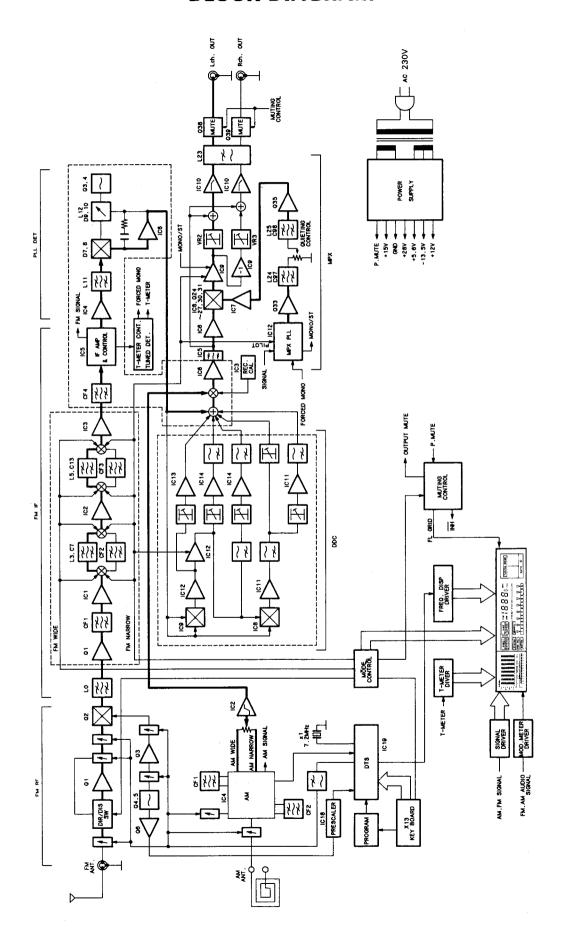
- **6** Remove 2 push rivets retaining the escutcheon to the sub-panel.
- Remove the screw on the escutcheon.
- 8 Remove the escutcheon in the direction of the arrow.
- **9** Remove the 4 screws on the sub-panel (front side: 2, lower side: 2).
- Remove the 2 screws at the sub-panel on the bottom plate.
- 1 Pull out the sub-panel slightly toward the front.
- Premove the 2 screws on the Quieting control unit.
- Remove the screw on the Sub-unit (X13-5422-72) (D/5), then remove the Sub-unit (X13-) (D/5).
- Remove 3 push rivets retaining the Sub-unit (X13-) (A/5) to the sub-panel.
- **(b)** Remove the Sub-unit (X13-) (A/5) in the direction of the arrow.



- **(b)** Loosen halfway the 2 screws at the rear side on the bottom plate.
- Remove the 2 screws at the front side on the bottom plate.
- **18** When removing the bottom plate only, also remove the 2 screws on the front side.
- 19 Remove the bottom plate.
- Remove the 7 screws retaining the right frame (4 on the tuner unit, 2 on the rear panel and 1 screw from the frame at the bottom of the board).
- Pull out the right frame slightly toward the front and remove it.



BLOCK DIAGRAM





CIRCUIT DESCRIPTION

Function of components

Tuner unit (X05-3172-71)

Components	Use/Function	Operation/Condition/Interchangeability
Q1	FM RF amp	
Q2	Mixer	
Q3	Tuned buffer amp	Isolates the oscillater from the mixer.
Q4,5	FM oscillator	
Q6	Oscillator buffer amp	For pre-scaler.
Q8	FM RF select output	ON when in the Direct mode.
Q9	· · · · · · · · · · · · · · · · · · ·	Turns Q10 ON and Q8 OFF when base is high.
Q10	FM RF select output	ON when in the Distance mode.
Q11	· · · · · · · · · · · · · · · · · · ·	ON when in the WIDE mode.
Q12		Turns Q11 ON when base is high.
Q13		ON when in NARROW mode.
Q14	<u>'</u>	Turns Q13 ON when base is low.
Q15		ON when in FM mode.
Q16		Turns Q15 ON when base is high.
Q17		ON when in the AM mode.
Q17 Q18		Turns Q17 ON when base is high.
	<u> </u>	
Q19	<u> </u>	Turns ON when the output from IC1 pin 1 is low to turn the STOP signal low.
Q20	<u> </u>	Turns ON when in the AM mode to transmit the audio signal.
Q21	REC CAL signal switch	Turns ON when in the REC CAL mode to transmit the REC CAL signal.
022	REC CAL signal control	Turns ON when in the REC CAL mode to cut the FM/AM signal (Q20: OFF).
Q23		Turns Q21 ON when in the REC CAL mode.
024	_	Applies the load resistance to IC8.
Q25	FM RF amp Mixer Tuned buffer amp FM oscillator Oscillator buffer amp FM RF select output FM RF select output IF BAND select output IF BAND select IF BAND select output IF BAND select FM-AM select output FM-AM select FM-AM select AUTO STOP signal control AM signal switch REC CAL signal switch	Performs constant current operation together with Q24.
Q26	IF BAND select FM-AM select output FM-AM select FM-AM select FM-AM select FM-AM select AUTO STOP signal control AM signal switch REC CAL signal switch REC CAL signal control Current mirror constant current Gain select switch Sub signal decode switch Current mirror contact current Auto quieting control 38 kHz sine wave generator amp Stereo display switch 38 kHz buffer amp Power ON muting Mute driver switch Muting driver Constant voltage power supply	Applies the load resistance to IC8.
Q27		Performs constant current operation together with Q26.
Q28	Gain select switch	Turns ON when in the NARROW mode and controls the separation (NARROW).
Q29	Sub signal decode switch	OFF when in stereo, ON when in mono.
Q30, 31	Current mirror contact current	Applies the constant current load (to ground side).
Q32	Auto quieting control	Controls the sub decoding level automatically when ANT input is low.
Q33	38 kHz sine wave generator amp	Loads the tuning circuit (38 kHz) consisting of LC (coil and capacitor) to convert the square wave into the sine wave.
Q34	Stereo display switch	Receives the signal from IC12 to turn the STEREO indication ON/OFF.
Q35	38 kHz buffer amp	Transmits the 38 kHz signal from the tank circuit to the SUB decoder in low impedance
Q36	Power ON muting	This switch is used to make the rising edge of IC2 (pin 1) output the muting signal.
Q37	Mute driver switch	Turns OFF when muting signal does not exist and make the base of the muting driver high impedance.
Q38, 39	Muting driver	Receives the muting signal and short-circuits the audio output.
Q40	Constant voltage power supply	+15V output. (Current buffer for IC13)
Q41	Error amp	Tracks to +15V power supply. (For -14V)
Q42	Constant voltage power supply	-14V output. (Power supply for control)
Q43		+18V output. (Power supply for display)
Q44		For +18V. (Tracking to -14V power supply)
Q45	1	Turns ON at the same time when the power is turned OFF and controls the mute signal
Q46		For +28V (VT).
Q47		For +28V (VT).
Q48		Receives the control signal and generates the muting signal.
Q49		Receives the signal from IC17 (pin 10) and turns DISTANCE ON. → Outputs 5 V.
Q50		Receives the signal from IC17 (pin 3) and outputs 5 V when in WIDE mode.
Q51		Output amp.
Q52	. Et loop into	Output side.
Q53	Differential amp	Receives the error signal from the controller.
Q54	CV - int for display	Power supply for CH A/CH B display LED. (Synchronized with the FL display)

Components	Use/Function	Operation/Condition/Interchangeability
Q55	Program control	
Q56	Program signal output	Transmits the signal to the M81 controller.
Ω57, 58		Sends the latch output to the controller to change the channel between A and B.
Ω59	P-CH A/B select	Sends the latch output to display LED. (CH A LED driver)
Q60		Sends the latch output to display LED. (CH B LED driver)
Q61	ALITO AAANI IALI	Sends the latch output to the controller and LED. (AUTO)
Q62	AUTO/MANUAL select	Sends the latch output to the controller and LED. (MANUAL)
Q63	REC CAL ON/OFF select	Sends the latch output to LED and control circuit when REC CAL is ON.
IC1 (1/2)	Stop signal control	Receives the FM range mute signal for controlling.
IC1 (2/2)	Stop signal generator	Receives the signal meter voltage and generates the auto stop signal (+15V).
IC2 (1/2)	Power ON mute signal generator	Generates the mute signal synchronizing with the rising DC voltage of IC10.
IC2 (2/2)	AM pre-emphasis amp	Calibrates the AM signal frequency.
IC3	REC CAL signal generator	400 Hz.
IC4	AM	RF amp, IF amp, DET, AGC, S meter.
IC5	Notch filter	114 kHz.
IC6	Main signal buffer	
IC7	Sub carrier buffer	38 kHz.
IC8	Colorination	Linear multiplier.
IC9	Sub signal decoder	Current/voltage conversion.
IC10	Stereo decode & de-emphasis	Addition of main signal and sub signal.
IC12	38 kHz generator (square wave)	Auto quieting control, beacon control.
IC13	Constant voltage power supply	+15V.
IC14	3-pin regulator	5V.
IC15	Power mute signal generator	
IC16	Select mute signal generator	
IC17 (1/4, 2/4)	WIDE/NARROW select latch	
IC17 (3/4, 4/4)	DIRECT/DISTANCE select latch	
IC18	Pre-scaler	FM oscillator dividing.
IC19	Controller	Including PLL.
IC20, 21	Latch for program	D-type flip-flop.
IC22 (1/2)	Latch for REC CAL	D-type flip-flop.
IC22 (2/2)	Latch for AUTO/MANUAL	D-type flip-flop.

IF/DET daughter unit (X86-1022-72)

Components	Use/Function	Operation/Condition/Interchangeability
Q1	IF amp	
Q3, 4	PLL DET VCO	10.7 MHz.
Q5	FM signal switch	Switches from REC CAL or AM, etc.
Q6	Gain control	Turns ON to raise the gain when in the NARROW mode.
Ω7	DCC ON/OFF switch	Receives the auto stop signal and compensates the distortion.
IC1-4	IF amp	
IC5	IF system	IF amp, range mute signal generation, S meter, quadrature detection.
IC6 (1/2)	PLL detector DC amp	
IC6 (2/2)	FM/AM signal amp	
IC8	3rd distortion generation	Linear multiplier.
IC9	2nd distortion generation	Linear multiplier.
IC11 (1/2)	3rd distortion current-voltage conversion	
IC11 (2/2)	Distortion phase compensation amp	3rd distortion in stereo mode.
IC12 (1/2)	2nd distortion current-voltage conversion	
IC12 (2/2)	Distortion phase compensation amp	Increase the distortion in NARROW mode.
IC13 (1/2)	Reference voltage generation	VCC/2 = 7.5V.
IC13 (2/2)	DET distortion compensation amp	Compensates the distortion in PLL detector.
IC14 (1/2)	MONO distortion compensation amp	For 2nd distortion compensation.
IC14 (2/2)	STEREO distortion compensation amp	For 3rd distortion compensation.

Tuner display unit (X13-5422-72)

Components	Use/Function	Operation/Condition/Interchangeability
Q1	Display control for AM mode	Turns ON when in the AM mode and controls WIDE, NARROW, DIRECT and DISTANCE indicators OFF.
Q6	DISTANCE display control	When turned ON, controls the DISTANCE indicator's OFF.
Ω7	WIDE display control	When turned ON, controls the WIDE indicator's OFF.
IC1	S-meter driver	Controls the vertical axis of S (signal strength) meter.
IC2	T-meter driver	Controls the horizontal axis of T-S (tuning-signal strength) meter.
IC3	DIV meter driver	
IC4, 5	FL driver	Converts the low-voltage circuit (0 – 5V) to FL drive voltage (0 – 18V).
IC6	Frequency display driver	Status driver for frequency display.
IC7	UP/DOWN controller	Dividing the pulses to UP and DOWN sides depending on the tuning direction.
IC8	Dividing, mono-stable	Divides the tuning pulse and maintains for fixed period.
IC9 1/2 (1-3)	AUTO control	
IC9 2/2 (5 - 7)	Level shift	Shifts the center voltage of the tuning meter.
IC10	DIV meter control	Controls the hold and reset operation of DIV meter.

Muting Circuit on Switching

Each key switch receives 5V in "push" status and is latched in IC17. (REC CAL circuit uses the exclusive flip-flop.) In the steady state, the cathode of D54 is pulled up at 5V by R216 (470 kohms). However, at the moment when each of DIS/DIR, WID/NAR keys is operated, the voltage is inverted to L by any of D55 – D58. At this moment, IC16 ② goes high

and its voltage is charged in C145 so that IC16 generates the muting signal. In the REC CAL mode, since IC16 is fixed at high level forcibly by D54, muting signal is not generated even when the DIS/DIR switch or WID/NAR switch is changed over. At this time, the muting signal from DTS will not be accepted (due to D51).

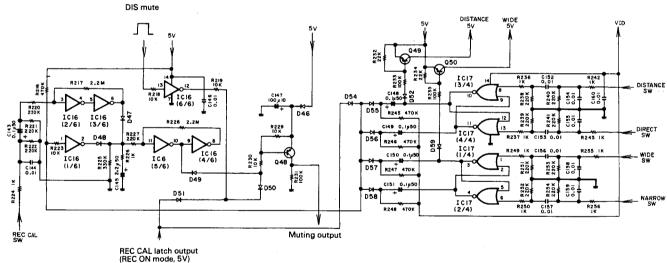
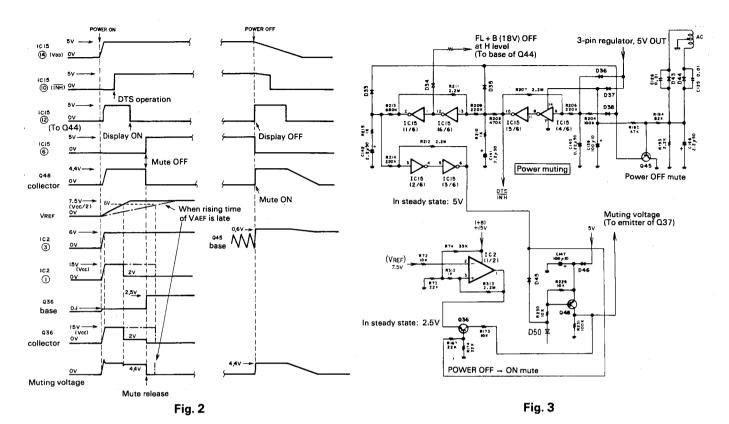


Fig. 1

POWER ON/OFF Muting

In this unit, the power muting circuit is designed as a 2-stage construction. First after the power is turned ON, INH, display and audio muting signal are generated by IC15 sequentially. And the audio muting voltage is obtained by using the output voltage of op amp (IC2).

Therefore, even if the mute output (**⑤**) of IC15 goes high (5V), the audio muting is activated when the output **①** of IC2 is more than 3V (since Q36 turns ON). Timing chart diagrams are shown below.



Auto-Stop Signal Generator Circuit

In FM mode: When no signal input (at no station) (Detune):

Since the range mute signal (LA1231N daughter) is 5V, IC1 1 is -15V. For this, Q19 turns ON and IC1 6 becomes 6.5V. At this time, as the S-meter voltage is less than 1V, IC1 7 (auto-stop signal output) becomes -15V.

: When a weak signal is input (receiving broadcast) (weak signal area: less then approx. 10 $dB\mu V$):

The range mute signal becomes 1V or less and IC1 ① becomes +15V. For this, Q19 turns OFF. However, since the S-meter voltage is low, IC1 ① is -15V.

LA1231N range mute

: When the broadcast station is received (more than $10-14~dB\mu V$):

Since the range mute signal is OV, Q19 turns OFF and IC1 6 becomes 1V. And since the Smeter voltage is high (IC1 5 > 1V), IC1 7 becomes +15V.

In AM mode: Since AM + B signal is applied to IC1 ③, IC1 ① is +15V regardless of the range mute signal state (H or L). Therefore Q19 turns OFF and IC1 ⑥ becomes 1V. For this, when the AM Smeter voltage is raised and IC1 ⑤ > 1V, stop signal is generated.

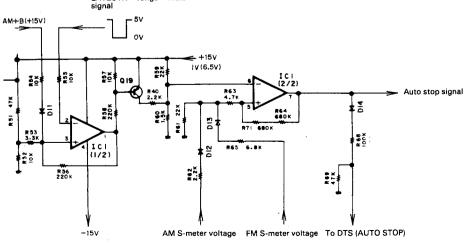


Fig. 4

T-1100I

MPX SUB Decoder (IC8: MC1495L)

The Direct Pure MPX enables stereo decoding without causing beat interference, in theory, by linear-multiplying two analog signals (stereo composite signal and 38 kHz sine wave sub carrier signal).

This unit provides the linear multiplier with high S/N ratio,

which is designed with the new theory, so that the high signal-to-noise ratio of 94 dB for the MPX unit itself and the resistance to overmodulation of 400% (dynamic range: 106 dB) are realized while the conventional characteristics are maintained.

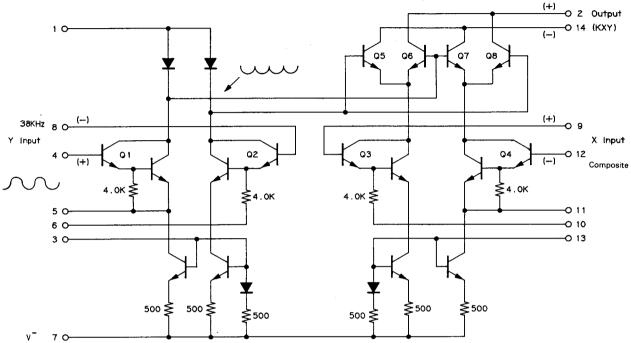


Fig. 5 MC1495L Internal equivalent circuit

Non-Stable Multi-Vibrator for Peak Hold and Reset

Since the BA668A deviation meter drive IC provides the peak-hold function as well as the reset pin, when random pulses are applied, a simple peak hold meter will be con-

structed. For this purpose, this circuit is used as the multivibrator consisting of two NOR gates (C-MOS) and oscillates by the mechanism as follows:

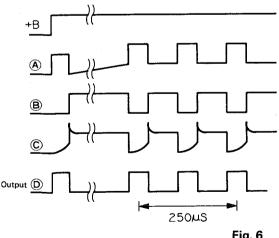


Fig. 6

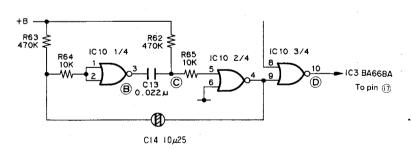


Fig. 7 IC10: μ PD4001BC

While two inputs of the first NOR gate are short-circuited, one end of the second NOR gate is grounded. This is because the threshold values of two gates are set differently to prevent the circuit from entering non-oscillation/stable state at the power ON/OFF timing.

Digital Rotary Tuning

The basic configuration is that the transparent slits (30 slits) on the rotating disk attached to the tuning knob pass through PH1 as shown, whereby the rotary direction is identified, until the required reception frequency is obtained.

PH1 is a photo-interrupter incorporating LED (light-emitting diode), phototransistor and logic circuits.

The phototransistors are arranged in a pair.

- 1. The signal which identifies the rotary direction is output from pin 4.
 - Clockwise rotation (tuning to high frequency band): high level
 - Counterclockwise rotation (tuning to low frequency band): low level
- 2. The tuning speed is determined by the number of pulses to be output from pin 5 which are proportional to the number of slits.

So that by using these two signals (a and b) the UP and DOWN pulses are obtained, logic circuits IC7 and IC8 are added

IC7 distributes pulses for UP or DOWN directions.

IC8 prevents malfunction and serves as a frequency divider and monostable multivibrator.

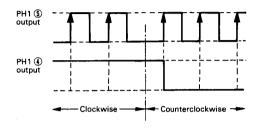


Fig. 9 Operation timing chart of PH1

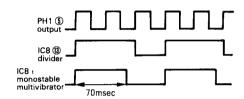


Fig. 10

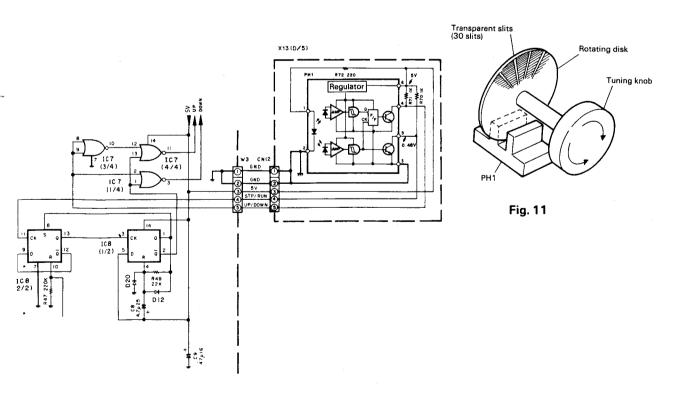


Fig. 8 Digital rotary timing circuit

ADJUSTMENT

		INPIIT	OUTPUT	TUNER	ALIGNMENT		-
No.	ITEM		SETTINGS	SETTINGS	POINTS	ALIGN FOR	FIG.
F M							<u> </u>
1 141	SELECTOR: FM					PROGRAM: OFF	
	40.15.1.10		Connect a genescope			Maximum amplitude and	-
1	IFT			IF BAND:	1.10	§	(a)
	,,,,		1				
-		OTV AND DO.			(,,,,,	following: PROGRAM:OFF Maximum amplitude and symmetry of the oscilloscope display. 3.0V±0.1V 25.0V±0.1V 0.000V±10mV Maximum amplitude and symmetry of the oscilloscope display. Turn clockwise until the Modulation indicator lights. 19.000kHz±15Hz Minimum distortion. Minimum distortion. Minimum distortion.	1
2	BAND EDGE	_	SETTINGS		(b)		
۵				0.01=0.11	(4)		
	(1)				(100)		·
3	DAND PDCP			,	TCI	95 NV+N 1V	(b)
э				ţ.	1	20.0720.17	1
	(4)			<u> </u>		<u> </u>	1
		(4)	hepeat alignments 2 at	id a several tr			
			Connect a DC]	1.0		
	DIGODININATOD		i	กอกหน		0.000V+10=V	(c)
4	DISCRIMINATOR			90.UMIZ	(800-)	0.00071101117	(6)
			IPIU AND IPII,		<u> </u>		
			0	1	1.10		
_			1	00 04"	ļ	0.0008-10.4	(2)
5	PLL DETECTOR		1	98.0MHz	(86-)	U.UUUV±10mV	(d)
			TP12 and TP13.		ļ		-
							-
6	RF ALIGNMENT	98.0MHz	(B)	98.0MHz	1		
		1kHz,±75kHz dev			(X05-)	oscilloscope display.	1
	AUTO-STOP	98.0MHz			VR1	Turn clockwise until the	
7	SENSITIVITY	1kHz,±75kHz dev	(B)	98.0MHz	(X86-)	Modulation indicator lights.	1
		12dBμ (ANT input)					
		(C)					
	MPX	98.0MHz	Connect a frequency		VR4		
8	VCO .	0 dev	counter between	98.0MHz	(X05-)	19.000kHz±15Hz	(e)
		80dBμ (ANT input)	TP14 and GND.				
		98.0MHz					ļ
	SUB	Selector: SUB			L25		
9	CARRIER	100Hz,±68.25kHz dev	(B)	98.0MHz	(X05-)	Minimum distortion.	
	(38kHz)	Pilot:±6.75kHz dev					
		80dBμ(ANT input)			İ		
10	DISTORTION (1)		(B)	98.0MHz	VR3	Minimum distortion.	
10			\-, ·		L .		
	"				1		
t 1	DISTORTION (2)	l .	(B)	98 0 МН 2	VR4	Minimum distortion	İ
11		l .	(1)	00,000	i	militaria di decitioni,	
	UNUM			-	(//30)		
		(0)		 	-		
					1		1
		1	(5)	0.0 0	WD 2		İ
12	DISTORTION (3)		(B)	98.0MHz		Minimum distortion.	1
	MONO	1			(X86-)		
		80dBμ(ANT input)		!			<u> </u>
				1		Ì	
		98.0MHz					
	DISTORTION (4)	Selecter: L			VR5		
13	STEREO	1kHz,±68.25kHz dev	(B)	98.0MHz	(X86-)	Minimum distortion.	
		Pilot:±6.75kHz dev				1	
	1						
		 			1		
		98.0MHz					
	DISTORTION (5)	Selecter: SUB			VR7	1	
1.4	STEREO	1kHz,±68.25kHz dev	(B)	98.0MHz	(X86-)	Minimum distortion.	
14	Vanaic	Pilot:±6.75kHz dev	(8)	1 00. VMIIZ	\	minimum diotollion.	
				ĺ			
		80dBμ (ANT input)	L	1	1		

	ī	LNDUT	OUTDUT	THEFT	AL LONNONT		
No.	ITEM	SETTINGS	SETTINGS	SETTINGS	POINTS	ALIGN FOR	FIG.
		(C)					
		98.0MHz					
	DISTORTION (6)	Selector: L		98.0MHz	VR2		İ
15	STEREO NARROW	1kHz,±40.0kHz dev	(B)	IF BAND:	(X86-)	Minimum distortion.	
	(E,T type)	Pilot: ±6.00kHz dev		NARROW			
		80dBμ (ANT input)					
		(C)					
		98.0MHz					
	DISTORTION (6)	Selector: SUB		98.0MHz	VR2		
15	STEREO NARROW	1kHz,±68.25kHz dev	(B)	IF BAND:	(X86-)	Minimum distortion.	
	(U.UE.M type)	(C) 98.0MHz Selector: L 1kHz,±40.0kHz dev Pilot: ±6.00kHz dev 80dBμ(ANT input) (C) 98.0MHz Selector: SUB 98.0MHz VR2 Minimum distortion. Minimum distortion. VR2 VR2 VR2 VR2 VR2 VR2					
		80dBμ(ANT input)					
			Repeat alignments 11~	15 several tim	ies.		
		(C)					
		98.0MHz		·			
	SEPARATION	Selector: R		!	VR2		
16	(1)	1kHz,±68,25kHz dev	(B)	98.0MHz	(X05-)	Minimum crosstalk.	
	R→L	Pilot: ±6.75kHz dev					
	•	80dBμ (ANT input)					j
		(C)					
	ļ	98.0MHz					
	SEPARATION				VR3		İ
17	(2)		(B)	98.0MHz		Minimum crosstalk.	
• •	L→R	ľ	(5)		(,,,,,		
		······································					
	SEPARATION			อย กมแร	VD1		
10			(D)	1		Minimum erosetalk	ļ
18	(3)	İ	(B)		(409-)	minimum crosstaik,	
	NARROW			NARRUN			
	L→R				-		
					,	0	
	T – S			0.0 41411		•	
19		1		98.OMHZ			
	METER				1		
		80dBμ(ANT input)			*	center light uniformly.	
					1		
20	DEVIATION	-	_	REC CAL:ON			(f)
					(X13-)	4th dot lights.	
21	SIGNAL METER	Selector: MONO	-	98.0MHz	VR3	Lighting of the 7th dot.	(g)
	1	1kHz,±75kHz dev			(X13-)		
		40dBμ(ANT input)					
* If	red color does no	t light, increase the	modulation or decrease	the modulated	frequency of	the signal generator.	
A M							
	SELECTOR: AM I	F BAND: NARROW TUNING		FF			
_					<u> </u>		
[1]	BAND EDGE	=	1	531kHz		1.5±0.1V	(b)
	(1)				(X05-)		
	;		1		1		
[2]	BAND EDGE	_	1	1602kHz	TC2	8.0±0.1V	(b)
	(2)		TP6 and TP7.		(X05-)		
			Repeat alignments [1]	and [2] severa	l times.		
		(D)				Maximum amplitude and	
[3]	RF ALIGNMENT	630kHz	(B)	630kHz	L21	symmetry of the	
	(1)	400Hz,30% mod			(X05-)	oscilloscope display.	\perp
[4]	RF ALIGNMENT		(B)	1440kHz	TC3		1
	(2)				1		1
	· `	, , , , , , , , , , , , , , , , , , , ,	Repeat alignments [3]	and [4] severa			
	i		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,			
		Apply IF(450kHz)	to pin 13 of IC4 or		L22	Maximum amplitude and	
[5]	IFT	from the genescope	to the junction of	_	(X05-)	symmetry of the	(a)
[0]	11.1	to pin 6 of IC4.	R98 and C61.		(,	oscilloscope display.	(4)
	1	LO PIR U OL 104.	neo and our.	1		occitionopo alapiaj.	1

REGLAGE

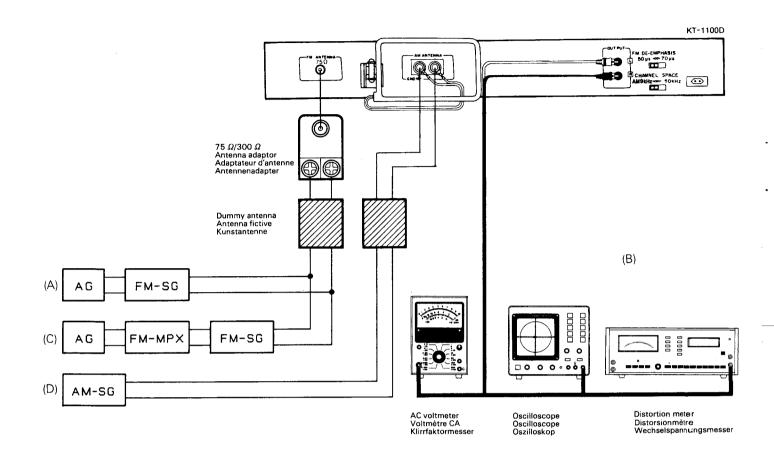
-		REGLAGE DE	REGLAGE DE	REGLAGE DU	POINT DE		
N°	1TEM	L'ENTREE	LA SORTIE	TUNER	L'ALIGNEMENT	ALIGNER POUR	FIG
SEC	CTION MF	Sauf en cas d'indic	ations spéciales, régler	chaque commut			
			CTOR:DISTANCE TUNING M	ODE: AUTO REC	CAL:OFF PRO	GRAM: OFF	
	QUIETING CONTOL:						
,	TRANCPORMATEUR		Pageorder le	IF RAND.	110	Amplitude et symétrie	
1	i i						(a)
	TIRM						
	BORD DE BAKDE	et Lo.		TUNING MODE:	L14		
2		-			(X05-)	3,0V±0,1V	(b)
			Connecter un voltmètre	TUNING MODE:	TC1		
3	(2)	_				25,0V±0.1V	(b)
			Répéter les points 2 et	3 plusieurs f	ois.		
						0.0004.10.4	(.)
4	DISCRIMINATEUR			98,0MHz	(186-)	U,UCUV±10mV	(c)
			IPIO et II.				
			C		1.19		
-	DETECTEUD DIT			08 0MH2		0 000V+10mV	(4)
5	DELECTEUR PLL			50,0m112	(100)	0,0007210111	(4)
			1112 01 10.			Amplitude et symétrie	
6	ALIGNEMENT HT		(B)	98,0MHz	L1.4.7.18	maximale de l'affichage	
ū		1kHz.±75kHz dév			(XO5-)	de l'oscilloscope.	
		(A)				Tourner dans le sens des	Ì
	SENSIBILITE	98,0MHz				_	
7	ARRET	1kHz.±75kHz dév	(B)	98,0MHz	(X86-)		
	AUTOMATIQUE					de modulation s'allume.	ļ
				0.0 0.00	1	10 000kUa+15Ua	(0)
8	VCO			98,UMHZ	(XUD-)	19,000kH2±15H2	(e)
			IFI4 et GND.				
		1.7				·	
	SOUS -PORTFUSE				L25		
9			(B)	98.0MHz	1	Distorsion minimale.	
J	(BOKILE)		,,				
		(C)					
		98,0MHz					
10	DISTORSION (1)	Sélection: MONO	(B)	98,0MHz	1	Distorsion minimale.	
	DET				(X86-)		
				ļ		·	ļ <u>.</u>
	DIOTORGION (0)	1	(9)	ถง กมบร	VD4	Distorsion minimals	
11		l .	(D)	30, UMIIZ	1	Distorsion minimate.	
	MONO				(100)	1	
							<u> </u>
12	DISTORSION (3)	1	(B)	98,0MHz	VR6	Distorsion minimale.	
	1	1			(X86-)		
		80dBμ (Entrée ANT)					ļ
		(C)					
		1					
					1		
13	STEREO	l .		98,0MHz	(X86-)	Distorsion minimale.	
			1				
							+-
						1	
	DICTORCION (C)	98,0MHz			VR7		
1.4	DISTORSION (5)	Sélection: SUB 1kHz.±68,25kHz dév	(B)	98,0MHz	(X86-)	Distorsion minimale.	
14	STEREO	Pilote: ±6,75kHz dé	1	30,0M112	(400)	pistorou minimare.	
		80dBμ (Entrée ANT)					
		1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -					

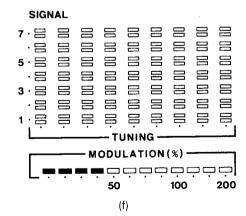
		REGLAGE DE	REGLAGE DE	REGLAGE DU	POINT DE		T
N°	ITEM	L'ENTREE	LA SORTIE	TUNER	L'ALIGNEMENT	ALIGNER POUR	FIG
15	DISTORSION (6) (E et T type)	(C) 98.0MHz Sélection:L 1kHz.±40.0kHz dév Pilote:±6.00kHz dév 80dBμ (Entrée ANT)	(B)	98,0MHz 1F BAND: NARROW	¥R2 (X86-)	Distorsion minimale.	
15	DISTORTION (6) (U,UE.M type)	(C) 98.0MHz Sélection:SUB 1kHz.±68,25kHz dév Pilote:±6,75kHzdév 80dBμ(Entrée ANT)	(B)	98,0MH2 IF BAND: NARROW	VR2 (X86-)	Distorsion minimale.	
		r	Répéter les points 11∼	15 plusieurs f	ois.		7
16	SEPARATION (1) D→G	(C) 98.0MHz Sélection:R 1kHz.±68,25kHz dév Pilote:±6,75kHz dév 80dBμ(Entrée ANT)	(B)	98,0MHz	VR2 (X05-)	Diaphonie minimale.	
17	SEPARATION (2) G→D	(C) 98.0MHz Sélection:L 1kHz.±68.25kHz dév Pilote:±6.75kHz dév 80dBμ(Entrée ANT)	(B)	98,0MHz	¥R3 (X05-)	Diaphonie minimale.	
18	SEPARATION (3) NARROW G→D	(C) 98.0MHz Sélection:L 1kHz.±68.25kHz dév Pilote:±6.75kHz dév 80dBμ(Entrée ANT)	(B)	98.0MHz IF BAND: NARROW	VR1 (X05-)	Diaphonie minimale.	
19	T-S Metre	(C) 98,0MHz Sélection:MONO 10Hz.±100kHz dév 80dBμ(Entrée ANT)	-	98.QMHz	VR2 (X13 -) ★	Faire fonctionner de manière à ce que la couleur rouge aux extrémités du centre s'allume uniformément.	
20	DEVIATION	_	-	REC CAL: ON	VR4 (X13-)	Position où le 4ème point s'allume.	(f)
21	COMPTEUR DE SIGNAL	(C) 98.0MHz Sélection:MONO 1kHz.75kHz dév 40dBμ(Entrée ANT)		98,0MHz	VR3 (X13-)	Illumination du 7ème point.	(g)
*Si	la couleur rouge				réquence module	ée du générateur de signal.	
_			sser l'antenne bouche MA NG MODE:AUTO REC CAL:O		100		
[1]	BORD DE BANDE (1) BORD DE BANDE	-	Connecter un voltmétre CC entre les TP6 et 7. Connecter un voltmétre	531kHz	L20 (X05-) TC2	1.5±0.1V	(b)
[2]	!	-	CC entre les TP6 et 7. Répéter les points [1]	1602kHz et [2] plusie	(X05-)	8,0±0,1V	(b)
	1	(D)				Amplitude et symétrie	T
[3]	ALIGNEMENT HT (1)	630kHz 400Hz,30% mod	(B)	630kHz	L21 (X05-)	maximale de l'affichage de l'oscilloscope.	
[4]	ALIGNEMENT HT (2)	(D) 1440kHz 400Hz.30% mod	(B)	1440kHz	TC3 (X05-)	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
			Répéter les points [3]	et [4] plusie	eurs fois.	A	
[5]	TRANSFORMATEUR FI	Appliquer FI(450kHz) du généscope à la broche 6 de Cl4.	Raccorder le généscope à la broche 13 de C14 ou à la jonction de R98 et C61.	_	L22 (X05-)	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	(a)

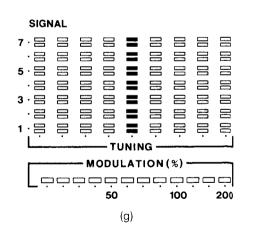
ABGLEICH

		EINGANGS-	AUSGANGS-	TUNER-	ABGLEICH-		
NR.	GEGENSTAND	EINSTELLUNG		EINSTELLUNG	PUNKTE	ABGLEICHEN FÜR Schalter wie folgt einstel	ABB
UK	SELECTOR: FM QUIETING CONT				REC CAL:OFF	PROGRAM: OFF	ien:
1	ZF-UBERTRAGR	Das Genskop an die Verbindung von C19 und L8 anschließen.	Das Genskop an Stift 4 von CN3 von DT2 anschließen.	IF BAND: NARROW	L10 (X05-)	Maximale Amplitude und Symmetrie des Oszilloskopbildes.	(a)
2	BANDKANTE (1)		Einen Gleichspannungs- messer zwischen TP6 und TP7 anschließen.	TUNING MODE: MANU 87,5MHz	L14 (X05-)	3,0¥±0,1¥	(b)
3	BANDKANTE (2)	-	Einen Gleichspannungs- messer zwischen TP6 und TP7 anschließen.	TUNING MODE:	TC1 (X05-)	25.0V±0.1V	(b)
		77.	Abstimmungen 2 und 3 m	nehrere Male wi	ederholen.	1	
		(A) 98,0MHz	Einen Gleichspannungs-		L9		
4	DISKRIMINATOR	0 Hub 100dBμ(ANT-Eingang)	messer zwischen TP10	98,0MHz	(X86-)	0.000V±10mV	(c)
5	PLL-DETEKTOR	(A) 98.OMHz O Hub 100dBµ(ANT-Eingang)	Einen Gleichspannungs- messer zwischen TP12 und TP13 anschließen.	98,0MHz	L12 (X86-)	0.000Y±10mV	(d)
6	HF-ABGLEICH	(A) 98.0MHz 1kHz.±75kHz Hub	(B)	98,0MHz	L1.4.7.18 (X05-)	Maximale Amplitude und Symmetrie des Oszilloskopbildes.	
7	AUTOSTOP- EMPFINDLICHKEIT	12dBμ (ANT-Eingang)		98,0MHz	VR1 (X86-)	In Uhrzeigerrichtung drehen, bis die Modulationsanzeige leuchtet.	
8	MPX VCO	(C) 98.0MHz 0 Hub 80dBμ(ANT-Eingang)	Einen Frequenzmesser zwischen TP14 und GND anschließen.	98,0MHz	VR4 (X05-)	19.000kHz±15Hz	(e)
9	HILFSTRÄGER (38kHz)	(C) 98.0MHz Wähler:SUB 100Hz.±68.25kHz Hub Pilotten: ±6.75kHz Hub 80dBμ(ANT-Eingang)	(B)	98,0MHz	L25 (X05-)	Minimal Klirrfaktor.	
10	KLIRRFAKTOR (1) DET	(C) 98.0MHz Wähler:MONO 1kHz.75kHz Hub 80dBµ(ANT-Eingang)	(B)	98,0MHz	VR3 (X86-)	Minimal Klirrfaktor.	
11	KLIRRFAKTOR (2) MONO	(C) 98,0MHz Wähier:MONO 1kHz.±75kHz Hub 80dBμ(ANT-Eingang)	(B)	98,0MHz	VR4 (X86-)	Minimal Klirrfaktor.	
12	KLIRRFAKTOR (3) WONO	(C) 98,0MHz Wähler:MONO 1kHz.±75kHz Hub 80dBμ(ANT-Eingang)	(B)	98,0MHz	VR6 (X86-)	Minimal Klirrfaktor.	
13	KLIRRFAKTOR (4) STEREO	(C) 98.0MHz Wähler:L 1kHz.±68,25kHz Hub Pilotten: ±6.75kHz Hub 80dBμ(ANT-Eingang)	(B)	98.0MHz	VR5 (X86-)	Minimal Klirrfaktor.	
14	KLIRRPAKTOR (5) STEREO	(C) 98.0MHz Wähler:SUB 1kHz.±68,25kHz Hub Pilotten: ±6.75kHz Hub 80dΒμ(ANT-Bingang)	(B)	98,0MHz	VR7 · (X86 -)	Minimal Klirrfaktor.	

		EINGANGS-	AUSGANGS-	TUNER-	ABGLEICH-		
NR.	GEGENSTAND	EINSTELLUNG	EINSTELLUNG	EINSTELLUNG	PUNKTE	ABGLEICHEN FÜR	ABB
15	KLIRRFAKTOR (6) STEREO NARROW (E.T Typ)	(C) 98.0MHz Wähler:L 1kHz.±40kHz Hub Pilotten: ±6.00kHz Hub 80dΒμ(ANT-Eingang)	(B)	98.0MHz IF BAND: NARROW	VR2 (X86-)	Minimał Klirrfaktor,	
15	KLIRRFAKTOR (6) STEREO NARROW (U.UE.M Typ)	(C) 98.0MHz Wähler:SUB 1kH2.±68.25kHz Hub Pilotten: ±6.75kHz Hub 80dBμ(ANT-Eingang)	(B)	98.0MHz IF BAND: NARROW	VR2 (X86-)	Minimal Klirrfaktor.	
			stimmungen 11 und 15 meh	rere Male wiede	erholen.	1	Γ
16	STEREO KANAL TRENNUNG (1) R → L	(C) 98.0MHz Wähler:R 1kHz.±68,25kHz Hub Pilotten: ±6.75kHz Hub 80dBµ(ANT-Eingang)	(B) ,	98,0MHz	VR2 (X05-)	Minimales Übersprechen.	
17	STEREO KANAL TRENNUNG (2) L → R	(C) 98.0MHz Wähler:L 1kHz.±68.25kHz Hub Pilotten: ±6.75kHz Hub 80dBµ(ANT-Eingang)	(B)	98,0MHz	VR3 (X05-)	Minimales Übersprechen.	
18	STEREO KANAL TRENNUNG (3) NARRO¥ L → R	(C) 98.0MHz Wähler:L 1kHz.±68,25kHz Hub Pilotten: ±6,75kHz Hub 80dΒμ(ANT-Eingang)	(B)	98.0MHz IF BAND: NARROW	VR1 (XO5-)	Minimales Übersprechen.	
19	T-S Messer	(C) 98.0MHz Wähler:MONO 10Hz.±100kHz Hub 80dBµ(ANT-Eingang)	-	98,0MHz	VR2 (X13-) ★	So bedienen, daß die roten Farben an den Seiten der Mitte gleichmäßig leuchten:	
20	HUBVERHÄLTNIS	-	-	REC CAL:ON	VR4 (X13-)	So positionieren, daß der 4. Punkt leuchtet.	(f)
21	SIGNALMESSER	(C) 98,0MHz Wähler:MONO 1kHz.±75kHz Hub 40dBµ(ANT-Eingang)	_	98,0MHz	VR3 (X13-)	Der 7. Punkt leuchtet.	(g)
						s Signalgenerators verringern	i.
	SELECTOR: AM 1F	BAND: NARROW TUNIN	G MODE: AUTO REC CAL: OF	F .			
[1]	BANDKANTE (1)	_	Einen Gleichspannungs- messer zwischen TP6 und TP7 anschließen.	531kHz	L20 (X05-)	1,5±0.1¥	(b)
[2]	BANDKANTE (2)	_	Einen Gleichspannungs- messer zwischen TP6 und TP7 anschließen.	1602kHz	TC2 (X05-)	8,0±0.1¥	(b)
			stimmungen [1] und [2] m	ehrere Male wie	ederholen.		
[3]	HF-ABGLEICH (1)	(D) 630kHz 400Hz.30% mod (D)	(B)	630kHz	L21 (X05-)	Maximale Amplitude und Symmetrie des Oszilloskopbildes. Maximale Amplitude	
[4]	HF-ABGLEICH (2)	1440kHz 400Hz.30% mod	(B) stimmungen [3] und [4] m	1440kHz	TC3 (X05-)	und Symmetrie des Oszilloskopbildes.	
		Λ0	Das Genskop an Stift	chicic Male WI	CACTROLES.		
		ZF (450kHz) vom	13 von IC4 oder an die		L22	Maximale Amplitude	

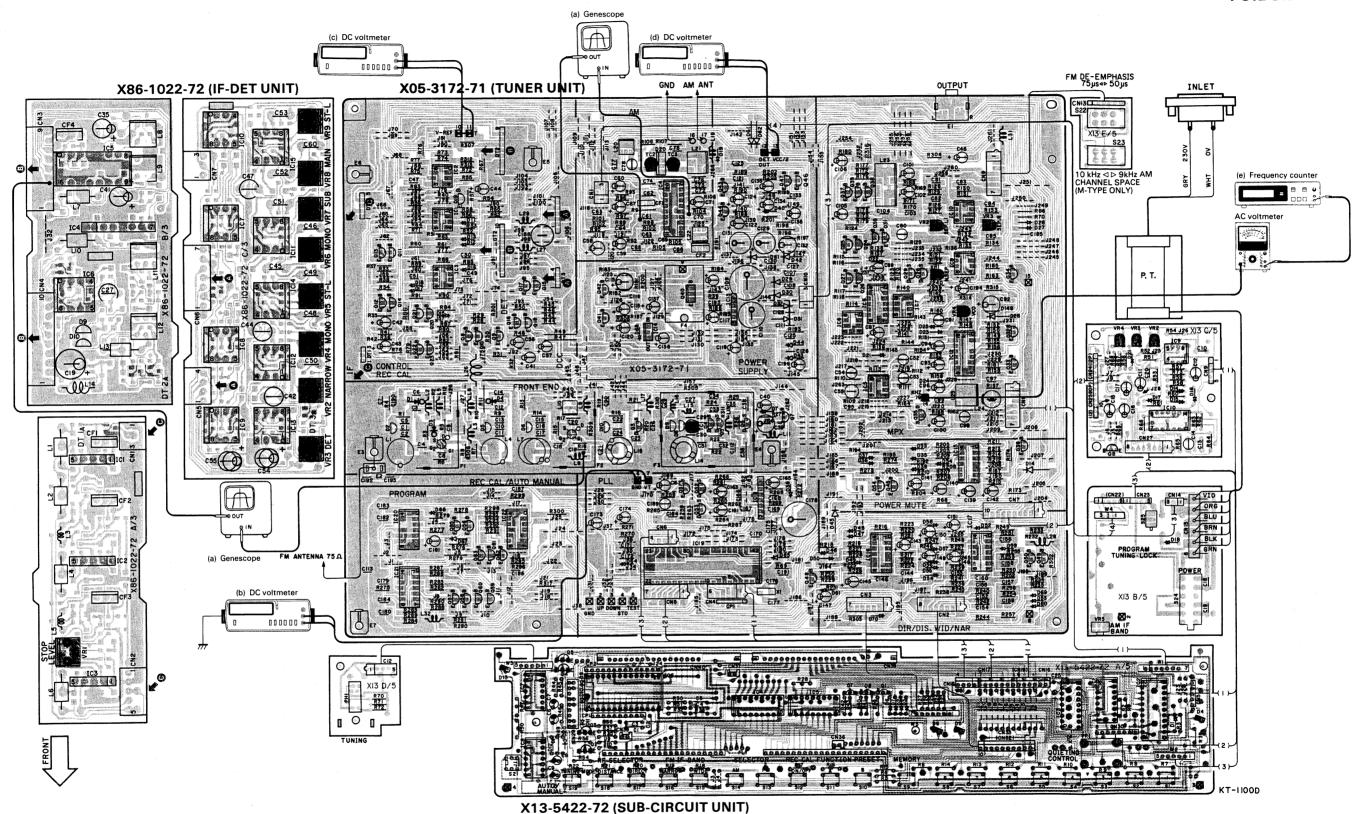






PC BOARD

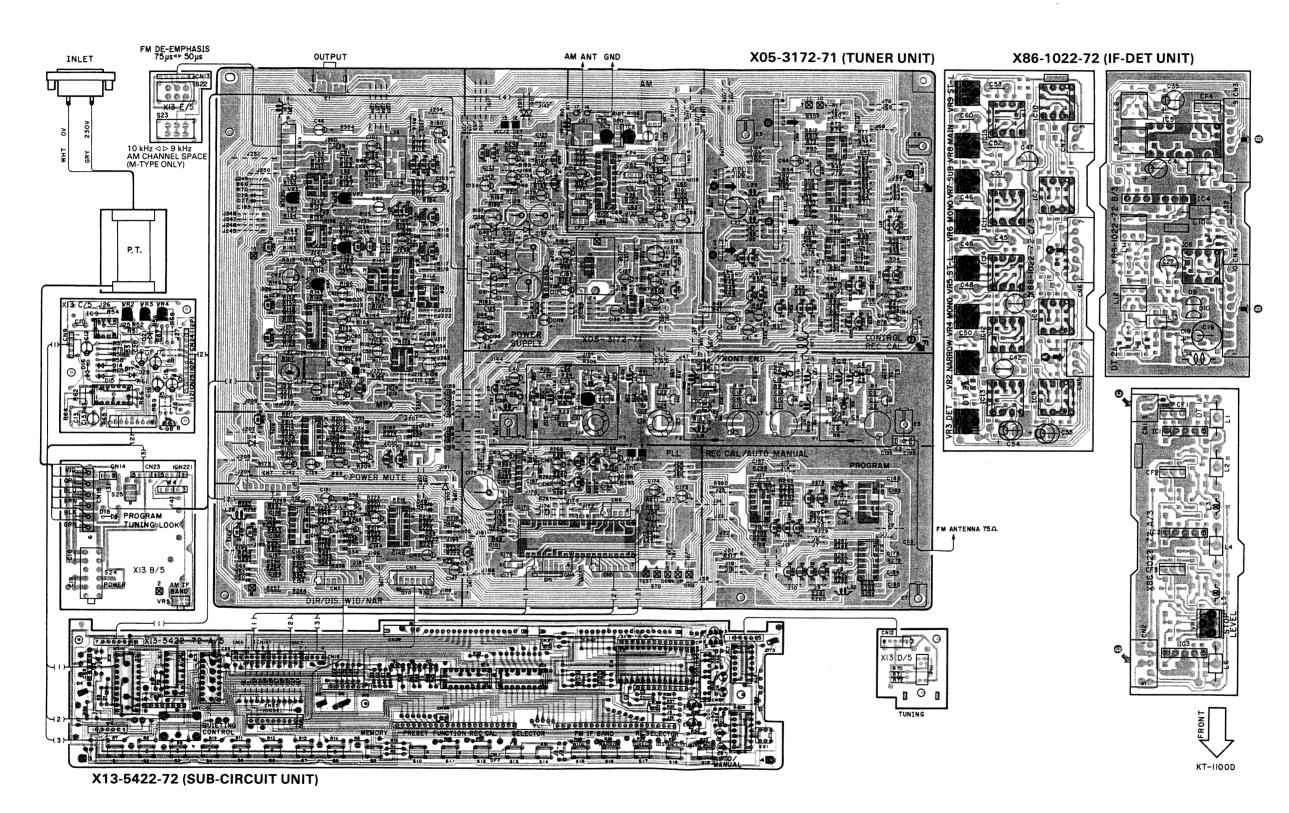
FOIL SIDE VIEW



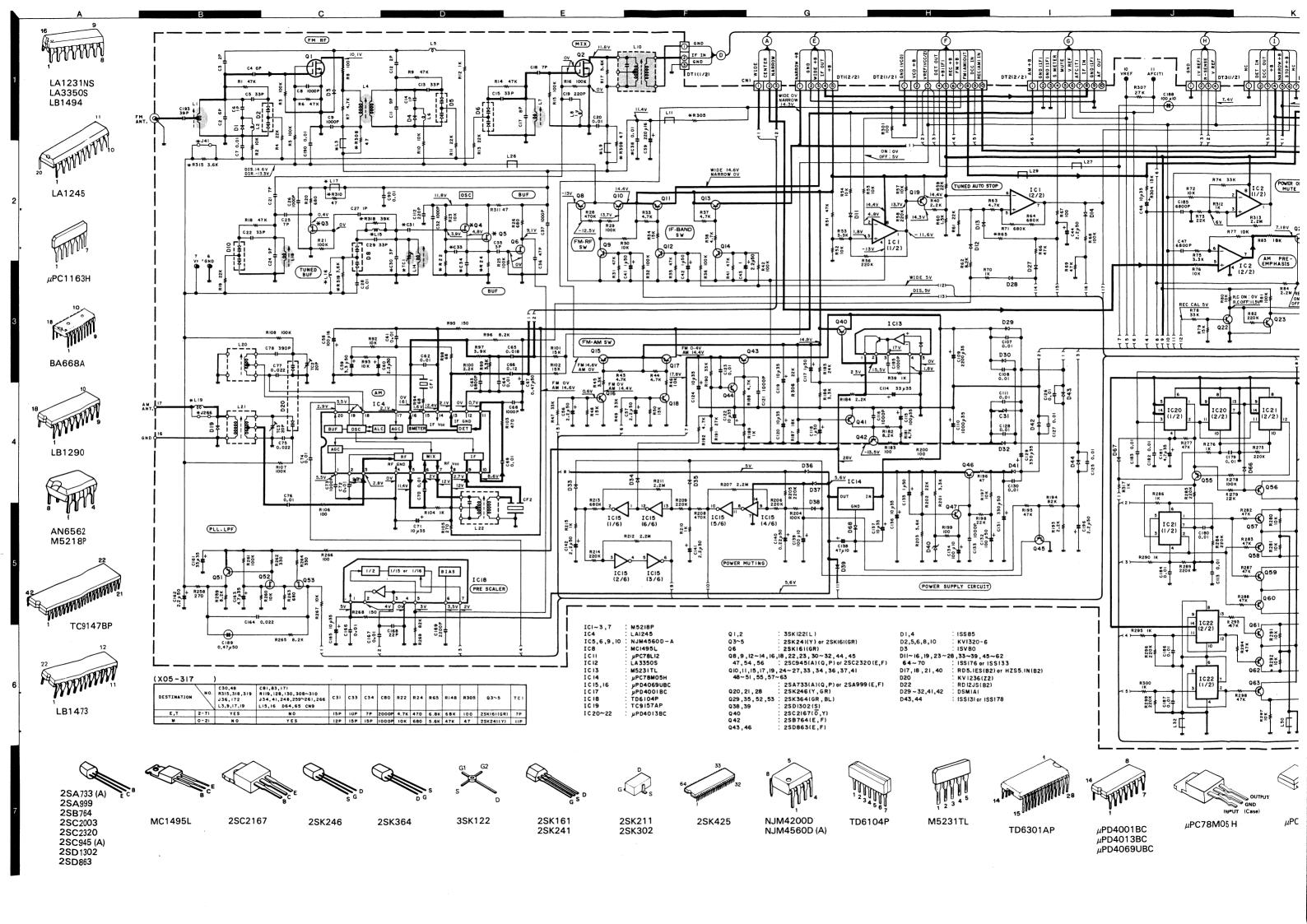
Refer to the schematic diagram for the values of resistors and capacitors.

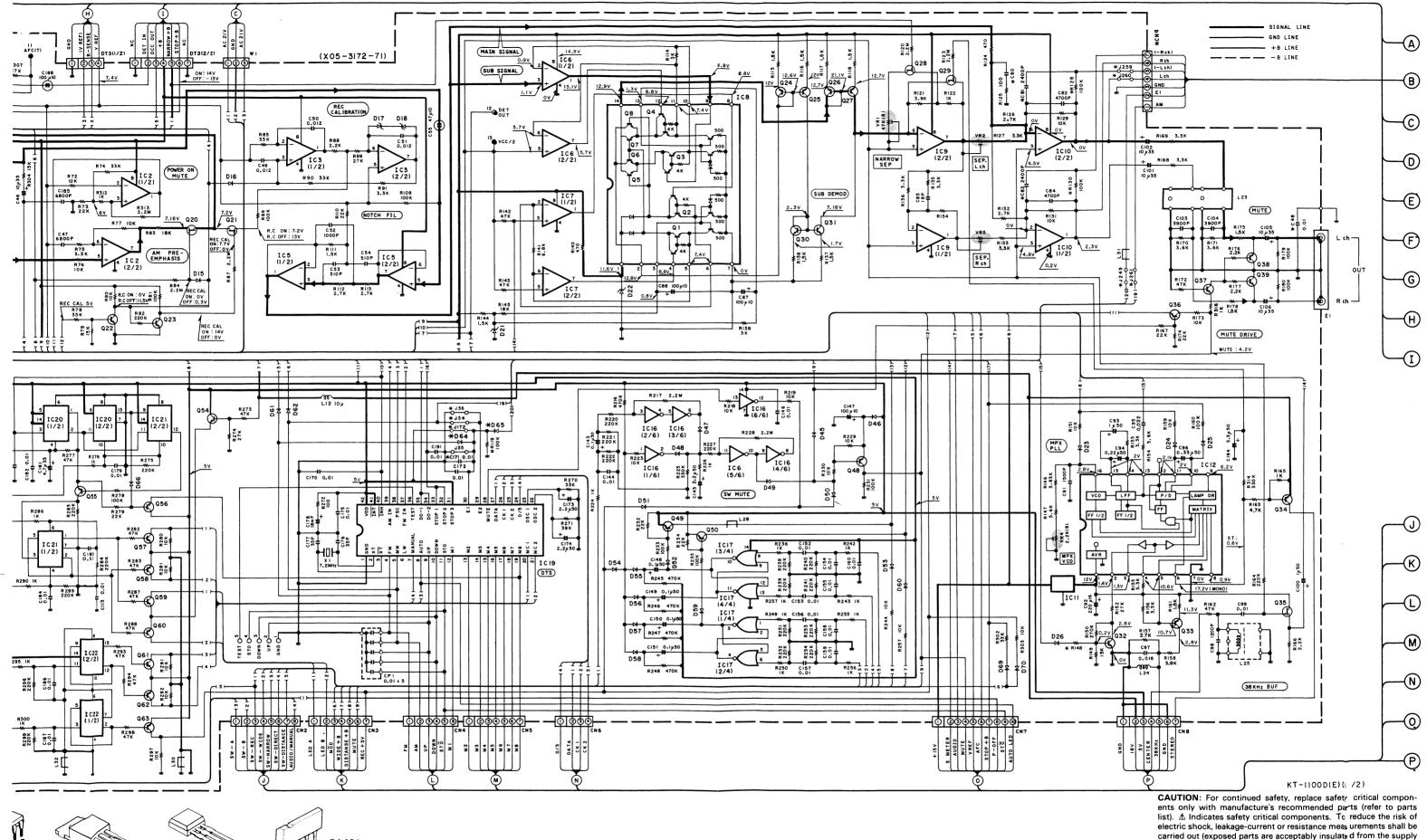
PC BOARD

COMPONENT SIDE VIEW



Refer to the schematic diagram for the values of resistors and capacitors.





OUTPUT GND OUTPUT GND OUTPUT GND OUTPUT 1 5 BA401 μPC78M05H μPC78L12

BC

JUBC

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenanskhuß) gegensch

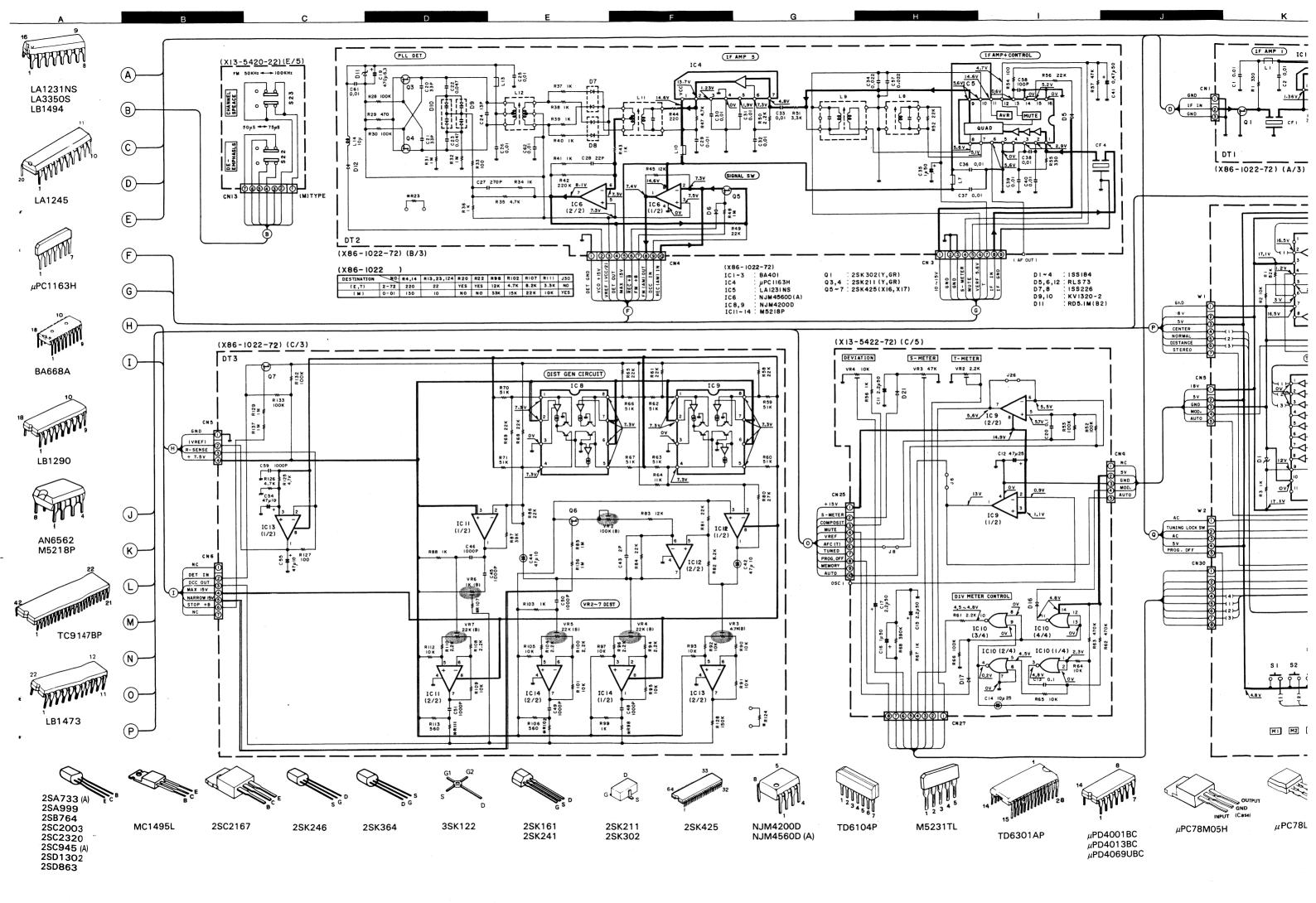
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

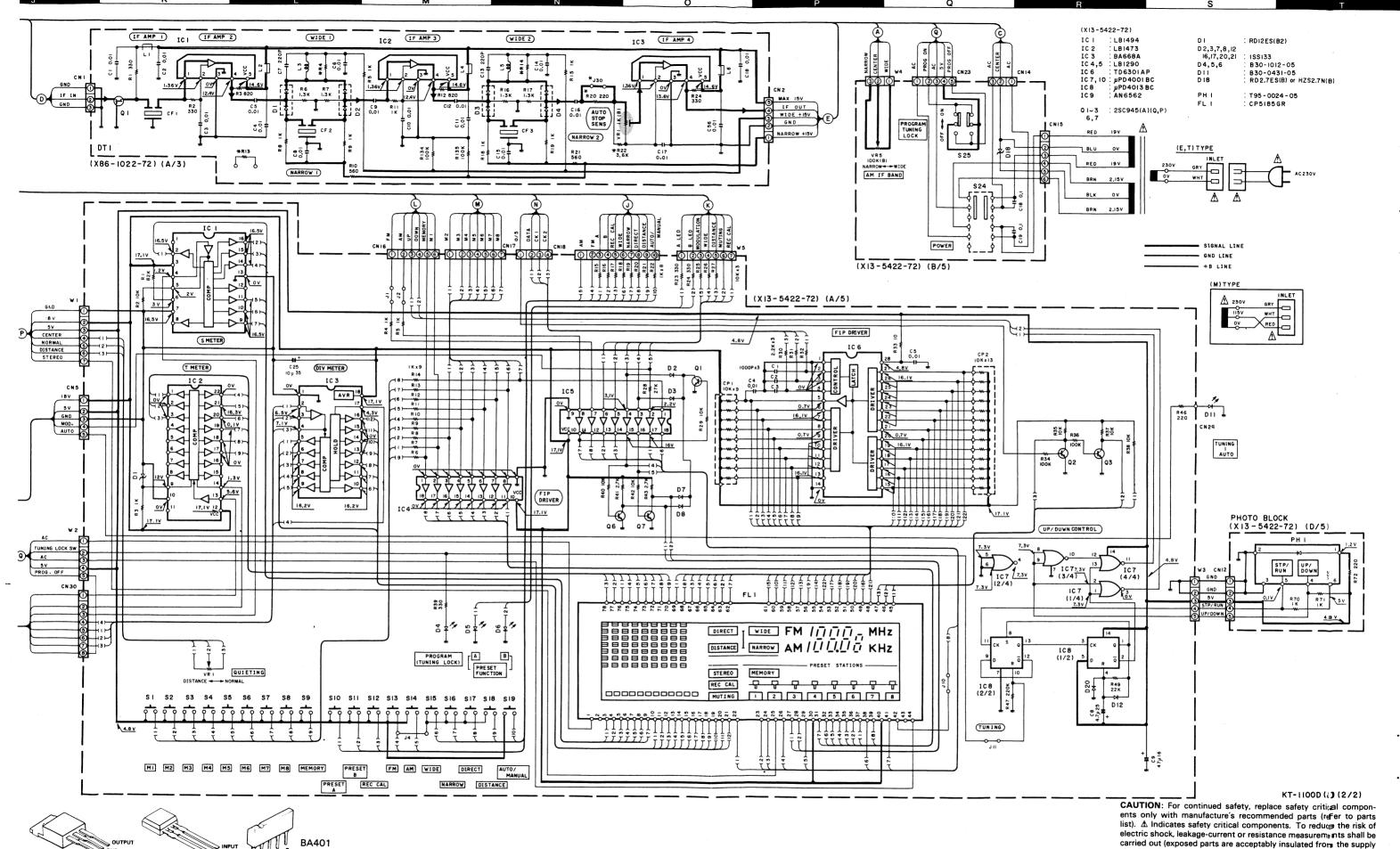
Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast

signal (with a signal strength of 60 dB at the ANT terminal).







Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals
(mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen.
Dabei schwanken die Meßwerte aufgrund von Unterschieden
zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.
Die eingeklammerten Gleichspannungswerte wurden bei Empfang
eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen.

OUTPUT

μPC78L12

μPC78M05H

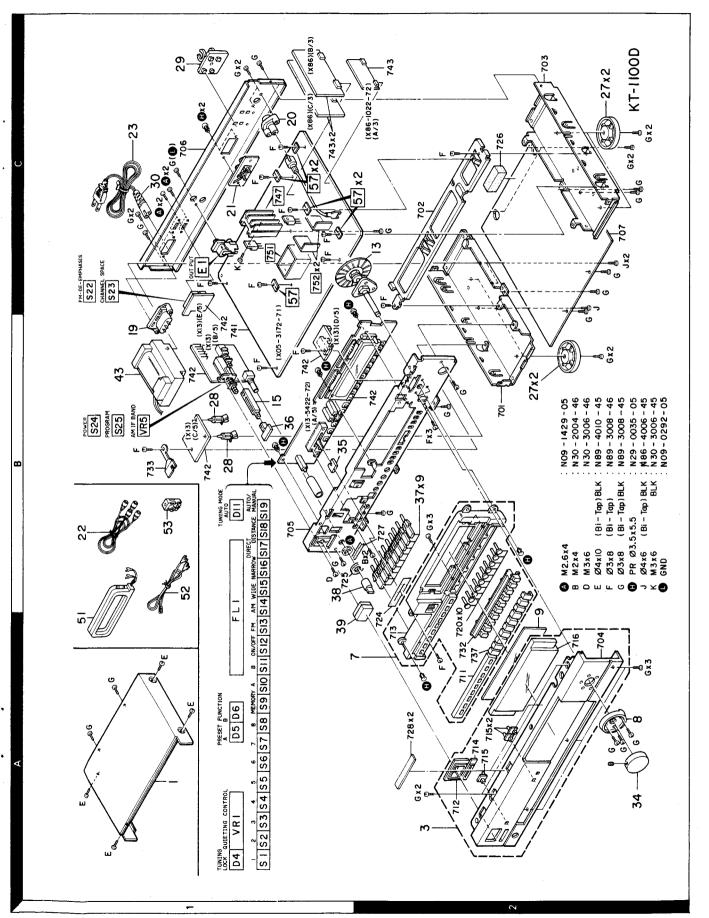
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).



EXPLODED VIEW





★ New Parts

PARTS LIST

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Telle ohne Parts No. werden nicht geliefert.

ſ	Ref. No.	Address		Parts No.	Description		Re- marks
	参照番号	位置	Parts 新	部品番号	部品名/規格		備考
					KT-1100D		
	1 3 3	1A 2A 2A	*	A01-1342-02 A20-4954-02 A20-4955-02	METALLIC CABINET PANEL ASSY PANEL ASSY	ME T	
	7 8 9 	1A 2A 2A	*	B07-1483-02 B07-1487-04 B11-0136-04 B46-0122-13 B46-0123-03	ESCUTCHEON ASSY ESCUTCHEON (TUNING) COLOR FILTER WARRANTY CARD WARRANTY CARD	E	
	-		* * * *	850-6372-00 850-6373-00 850-6374-00 850-6375-00 850-6391-00	INSTRUCTION MANUAL(ENGLISH) INSTRUCTION MANUAL(FRENCH) INSTRUCTION MANUAL(SPANISH) INSTRUCTION MANUAL(G,D,I) INSTRUCTION MANUAL(TRIO.ENG)	ME ME M E T	
	-			B58-0803-03	CAUTION CARD	E	
	13 15	2C 1B		D20-0177-03 D21-1144-04	DIAL SHAFT ASSY EXTENSION SHAFT(PROGRAM)		
Â	19 19 20 21 22	1C 1C 1C 1C 1C		E03-0047-05 E03-0102-25 E04-0006-05 E20-0228-05 E30-0505-05	AC INLET AC INLET RF CNAXIAL CABLE RECEPTACLE SCREW TERMINAL BNARD(2P) AUDIN CNRD	ET M	
A A	23 23 23	1C 1C 1C		E30-1305-15 E30-1328-15 E30-1329-05	AC POWER CORD (INLET) AC POWER CORD (INLET) AC POWER CORD (INLET)	M T E	
	<u>-</u> - - -		* * *	H01-7285-04 H01-7286-04 H10-3398-02 H10-3399-02 H12-1146-04	ITEM CARTON CASE ITEM CARTON CASE POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE PACKING FIXTURE	ME T	
	-			H25018104 H25022404 H25023204	PROTECTION BAG (150X260X0.05) PROTECTION BAG (800X400) PROTECTION BAG (235X350)		
	27 28 29	2B,2C 1B 1C		J02-0156-05 J19-0514-05 J19-0875-03 J61-0307-05	FOOT (Ø40X12.5) UNIT HOLDER ANTENNA HOLDER WIRE BAND		
	34 35 36 37 38	2A 1B 1B 2B 1B		K21-0405-04 K27-1292-04 K27-1514-04 K29-1588-04 K29-2201-04	KNOB (TUNING) KNOB (BUTTON) SLIDE KNOB (BUTTON) PROGRAM KNOB (PRESET) KNOB (OUTPUT VR)		
	39	1A		K29-2432-03	KNOB ASSY(BUTTON)POWER		
A	43 43	1B 1B	*	L01-7282-05 L01-7284-05	POWER TRANSFORMER POWER TRANSFORMER	ET M	
	A H M	1C 1B,1C 1C		N09-0292-05 N29-0035-05 N09-1429-05	STEPPED SCREW (Ø3X19) PUSH RIVET (3.5X5.5) MACHINE SCREW (M2.6X4)	ET M	
	51 52	1A 1B		T90-0111-15 T90-0132-05	LØØP ANTENNA T TYPE ANTENNA		

E: Scandinavia & Europe H:Audio Club K: USA P: Canada

W:Europe

S: South Africa

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Telle ohne Parts No. werden nicht geliefert.

Ref. No.	Address	1 1	Parts No.	Description	on	Desti-	Re-
参照番号	位置	Parts ≸f	部品番号	部品名/	規 格		marks 備考
53	1B		T90-0136-05	ANTENNA ADAPTOR			
33	1.6			(X05-3172-71)		<u> </u>	
C2 C3 C4 C5 C6			CC45FTH1H060D CC45FSL1H020C CC45FSL1H060D CC45FSH1H330J CC45FSL1H010C	CERAMIC 6. OPF CERAMIC 2. OPF CERAMIC 6. OPF CERAMIC 33PF CERAMIC 1. OPF	J D C		
C7 C8 ,9 C11 C12 C13			CK45FF1H103Z CK45FB1H102K CC45FTH1H090D CC45FSL1H020C CC45FSH1H330J	CERAMIC 0.010 CERAMIC 1000P CERAMIC 9.0PF CERAMIC 2.0PF CERAMIC 33PF	UF Z F K D		
C14 C15 C17 C1B C19			CC45FSL1H010C CC45FSH1H330J CC45FTH1H080D CC45FSL1H060D CC45FSL1H221J	CERAMIC 1. OPF CERAMIC 33PF CERAMIC 8. OPF CERAMIC 6. OPF CERAMIC 22OPF	J D D		Ī
C20 C21 C22 C24 C25			CK45FF1H103Z CC45FSL1H070D CC45FSH1H330J CC45FTH1H090D CC45FSL1H070D	CERAMIC 0.010 CERAMIC 7.0PF CERAMIC 33PF CERAMIC 9.0PF CERAMIC 7.0PF	D J D		
C26 C27 C28 C29 C30			CK45FB1H102K CC45FSL1H010C CK45FF1H103Z CC45FSH1H330J CC45FUJ1H030C	CERAMIC 1000P CERAMIC 1.0PF CERAMIC 0.010 CERAMIC 33PF CERAMIC 3.0PF	C UF Z J	ET	
C31 C31 C32 C33 C33,34			CC45FTH1H12OJ CC45FUJ1H15OJ CK45FB1H1O2K CC45FUJ1H1OOD CC45FSL1H15OJ	CERAMIC 12PF CERAMIC 15PF CERAMIC 1000PI CERAMIC 10PF CERAMIC 15PF	J J F K D J	M ET ET M	
C34 C35 C36 C37 C38			CC45FUJ1H070D CC45FSL1H030C C91-0737-05 C91-0757-05 C91-0769-05	CERAMIC 7. OPF CERAMIC 3. OPF CERAMIC 47PF CERAMIC 0. 001 CERAMIC 0. 01U	C J UF K	ET M	
C39 C41 ,42 C43 ,44 C46 C47			CE04KW1C221M CE04KW1H010M CE04KW1H2R2M CE04KW1V100M CF92FV1H682J	ELECTR® 220UF ELECTR® 1.0UF ELECTR® 2.2UF ELECTR® 10UF MF 6800P	50WV 50WV 35WV		
C48 C49 -51 C52 C53 •54 C55			CK45F1H103Z CF92FV1H123J CQ09FS1H102J CQ09FS1H511J C90-1334-05	CERAMIC 0.010 MF 0.012 POLYSTY 1000P POLYSTY 510PF NP-ELEC 47UF	UF J F J	ET	
C56 ,57 C58 C59 C60 C61			CE04KW1H2R2M CE04KW1C101M CE04KW1H3R3M CE04KW1H2R2M CF92FV1H103J	ELECTR® 2.2UF ELECTR® 100UF ELECTR® 3.3UF ELECTR® 2.2UF MF 0.010	16WV 50WV 50WV		
C62 C63			C91-0769-05 CF92FV1H6B2J	CERAMIC 0.01U MF 6800P			

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C64 C65 C66 C67 C68			CF92FV1H103J CF92FV1H183J CF92FV1H124J CE04KW1HR47M CK45FB1H102K	MF MF MF ELECTRO CERAMIC	0.010UF 0.018UF 0.12UF 0.47UF 1000PF	J J J 50WV K		
C69 ,70 C71 C72 C73 C74			C91-0769-05 CE04KW1V100M C91-0769-05 C91-0757-05 C91-0769-05	CERAMIC ELECTR® CERAMIC CERAMIC CERAMIC	0.01UF 10UF 0.01UF 0.001UF 0.01UF	M 35WV M K M		
C75 C76 C77 C78 C80			CK45FF1H223Z C91-0769-05 CK45FF1H223Z CQ09FS1H391JY 0 CQ09FS1H102J	CERAMIC CERAMIC CERAMIC POLYSTY POLYSTY	0.022UF 0.01UF 0.022UF 390PF 1000PF	Z M Z J J	м	The state of the s
C80 C81 C82 C83 C84		*	CQ09FS1H2O2J CF92FV1H242J CF92FV1H472J CF92FV1H242J CF92FV1H472J	POLYSTY MF MF MF MF	2000PF 2400PF 4700PF 2400PF 4700PF	J J J	ET M	
C85 C87,88 C90 C91 C92			CC45FSL1H180J CE04KW1A101M CK45FF1H103Z CQ09FS1H152JY0 CE04KW1C221M	CERAMIC ELECTRO CERAMIC POLYSTY ELECTRO	18PF 100UF 0.010UF 1500PF 220UF	J 10WV Z J 16WV		
093 094 095 096 097			CE04GW1H010M CE04GW1HR22M CF92FV1H223J CE04GW1HR33M CF92FV1H183J	LL-ELEC LL-ELEC MF LL-ELEC MF	1. OUF 0. 22UF 0. 022UF 0. 33UF 0. 018UF	50WV 50WV J 50WV J		-
C98 C99 C100 C101,102 C103,104			CQO9FS1H122JY0 CF92FV1H103J CE04KW1H010M CE04KW1V100M CF92FV1H392J	POLYSTY MF ELECTRO ELECTRO MF	1200PF 0. 010UF 1. OUF 10UF 3900PF	J 50WV 35WV J		
C105,104 C107,108 C109 C110 C111			CE04KW1V100M CK45FF1H103Z CE04KW1V222M CE04KW1V102M CK45FF1H103Z	ELECTRO CERAMIC ELECTRO ELECTRO CERAMIC	10UF 0.010UF 2200UF 1000UF 0.010UF	35WV Z 35WV 35WV Z		
C112 C113 C114 C115 C116			CC45FSL1H221J CK45FF1H103Z CED4KW1V33OM CED4KW1V101M CK45FB1H102K	CERAMIC CERAMIC ELECTRO ELECTRO CERAMIC	220PF 0. 010UF 33UF 100UF 1000PF	J Z 35WV 35WV K		
C117,118 C119,120 C121 C122 C123			CE04KW1H010M CE04KW1V100M CK45FB1H102K CE04KW1V100M CK45FF1H103Z	ELECTR® ELECTR® CERAMIC ELECTR® CERAMIC	1. OUF 10UF 1000PF 10UF 0. 010UF	50WV 35WV K 35WV Z		
C124 C125-128 C129 C130 C131			CE04KW1V100M CK45FF1H103Z CE04KW1V331M CK45FF1H103Z CE04KW1H331M	ELECTRO CERAMIC ELECTRO CERAMIC ELECTRO	10UF 0. 010UF 330UF 0. 010UF 330UF	35 W V		

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C132 C133 C134 C135 C136,137			CE04KW1H101M CK45FB1H102K CE04KW1A101M CE04KW1H010M CE04KW1V100M	ELECTR® 100UF CERAMIC 1000PF ELECTR® 100UF ELECTR® 1.0UF ELECTR® 10UF	50WV K 10WV 50WV 35WV		
C138 C139 C140 C141,142 C143			CE04KW1A470M CE04KW1A101M CE04KW1HR22M CE04KW1H2R2M CE04KW1H0R1M	ELECTR® 47UF ELECTR® 100UF ELECTR® 0.22UF ELECTR® 2.2UF ELECTR® 0.1UF	10WV 10WV 50WV 50WV 50WV		
C144 C145 C146 C147 C148-151			CK45FF1H103Z CE04KW1H2R2M C91-0769-05 CE04KW1A101M CE04KW1H0R1M	CERAMIC D. 010UF ELECTR® 2. 2UF CERAMIC D. 01UF ELECTR® 100UF ELECTR® 0. 1UF	Z 50WV M 10WV 50WV	,	
C152-154 C155-159 C160 C161 C162			C91-0769-05 CK45FF1H103Z C91-0769-05 CE04KW1V330M CE04KW1H2R2M	CERAMIC 0.01UF CERAMIC 0.010UF CERAMIC 0.01UF ELECTRO 33UF ELECTRO 2.2UF	M Z M 35WV 50WV		
C163 C164 C165 C166 C167			CE04KW1V4R7M CK45FF1H223Z CE04KW1V100M C91-0769-05 CK45FF1H103Z	ELECTR® 4.7UF CERAMIC 0.022UF ELECTR® 10UF CERAMIC 0.01UF CERAMIC 0.010UF	35WV Z 35WV M Z		
0168 0169 0170 0171,172 0172			CC45FSL1H220J CK45FB1H222K CK45FF1H103Z C91-0769-05 C91-0769-05	CERAMIC 22PF CERAMIC 2200PF CERAMIC 0.010UF CERAMIC 0.01UF CERAMIC 0.01UF	J K Z M M	M ET	
C173,174 C175 C176,177 C178 C179,180			CEO4KW1H2R2M C91-O769-O5 CC45FCH1H33OJ C9O-1416-O5 CK45FF1H1O3Z	ELECTR® 2.2UF CERAMIC 0.01UF CERAMIC 33PF ELECTR® 18UF CERAMIC 0.010UF	50WV M J 5. 5WV Z		
C181 C182-184 C185 C186,187 C188			CE04KW1V4R7M CK45FF1H103Z CF92FV1H682J CK45FF1H103Z C90-1443-05	ELECTR® 4.7UF CERAMIC 0.010UF MF 6800PF CERAMIC 0.010UF NP-ELEC 100UF	35WV Z J Z 10WV		
C189 C190,191 C193 C194 C195			C90-1331-05 CK45FF1H103Z CC45FSL1H390J CE04KW1H3R3M CK45FB1H102K	NP-ELEC 0.47UF CERAMIC 0.010UF CERAMIC 39PF ELECTRO 3.3UF CERAMIC 1000PF	50WV Z J 50WV K		
C196 TC1 TC1 TC2 ,3			CED4KW1H2R2M CO5-O301-O5 CO5-O302-O5 CO5-O303-O5	ELECTR® 2.2UF CERAMIC TRIMMER CAPAC CERAMIC TRIMMER CAPAC CERAMIC TRIMMER CAPAC	ITOR(11PF	ET M	
57 E1	1C 1C		E23-0149-05 E13-0217-05	TERMINAL PHONO JACK (2P)OUTPUT			
CF 1 CF 2 L1			L72-0096-05 L72-0099-05 L31-0545-05	CERAMIC FILTER CERAMIC FILTER FM-RF COIL			

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L2 L3 L4 L5 ,6 L7			L40-1092-14 L92-0017-05 L31-0546-05 L40-1092-14 L31-0545-05	SMALL FIXED INDUCTOR(1.OUH,M) FERRITE CORE FM-RF COIL SMALL FIXED INDUCTOR(1.OUH,M) FM-RF COIL	ET	
L8 L9 L10 L11 L12			L40-1092-14 L92-0017-05 L30-0434-05 L92-0017-05 L40-1001-14	SMALL FIXED INDUCTOR(1.OUH,M) FERRITE CORE FM IFT FERRITE CORE SMALL FIXED INDUCTOR(10UH,K)	ET	
L14 L15 ,16 L17 L18 L19			L32-0270-05 L40-1001-17 L92-0017-05 L32-0270-05 L40-1092-14	FM 0SCILLATING C0IL SMALL FIXED INDUCTOR(10UH,K) FERRITE CORE FM 0SCILLATING C0IL SMALL FIXED INDUCTOR(1.0UH,M)	M ET ET	
L20 L21 L22 L23 L24		*	L32-0277-15 L31-0509-05 L30-0362-05 L79-0154-05 L39-0143-05	MW 0SCILLATING C0IL MW-RF C0IL AM IFT LC FILTER PEAKING C0IL		
L25 L26 -29 L31 ,32 X1			L35-0059-05 L92-0017-05 L92-0017-05 L77-0578-05	MPX COIL FERRITE CORE FERRITE CORE CRYSTAL RESONATOR(7.2MHZ)		
CP1 R95 R146 R183 R196			R90-0545-05 RD14GB2E151J RN14BK2C3B31F RD14GB2E101J RD14GB2E470J	C@MP@SITE ELEMENTS FL-PR@@F RD 150	ET ET ET	
R200 R266 R301 R305 VR1			RS14KB3A101J RD14GB2E101J RD14GB2E101J RD14GB2E101J R12-3099-05	FL-PR00F RS 100 J 1W FL-PR00F RD 100 J 1/4W FL-PR00F RD 100 J 1/4W FL-PR00F RD 100 J 1/4W TRIMMING P0T. (47K)NARR0W L-R	ET ET ET	
VR2 -4			R12-1067-05	TRIMMING POT. (2.2K)SEP,MPX VCO		
D1 D2 D3 D4 D5 .6			15585 KV1320-5 15V80 15585 KV1320-5	DINDE VARIABLE CAPACITANCE DINDE DINDE DINDE VARIABLE CAPACITANCE DINDE		
D8 D10 D11 -16 D11 -16 D17 ,18			KV1320-5 KV1320-5 195133 195176 HZS5, 1N(B2)	VARIABLE CAPACITANCE DINDE VARIABLE CAPACITANCE DINDE DINDE DINDE ZENER DINDE		
D17 ,18 D19 D19 D20 D21			RD5.1ES(B2) 1SS133 1SS176 KV1236(Z2) HZS5.1N(B2)	ZENER DIØDE DIØDE DIØDE VARIABLE CAPACITANCE DIØDE ZENER DIØDE		
D21 D22 D23 -28 D23 -28		*	RD5. 1ES(B2) RD12JS(B2) 1SS133 1SS176	ZENER DIØDE ZENER DIØDE DIØDE DIØDE		

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D29 -32 D33 -39 D33 -39 D40 D40		DSM1A1 1SS133 1SS176 HZS5.1N(B2) RD5.1ES(B2)	DIODE DIODE DIODE ZENER DIODE ZENER DIODE	
D41 ,42 D43 ,44 D43 ,44 D45 -62 D45 -62		DSM1A1 1SS131 1SS178 1SS133 1SS176	DIODE DIODE DIODE DIODE	
D64 -70 D64 -65 D66 -70 D66 -70 IC1 -3		1SS176 1SS133 1SS133 1SS176 M5218P	DINDE DINDE DINDE DINDE IC(NP AMP X2)	M M ET
IC4 IC5 ,6 IC7 IC8 IC9 ,10		LA1245 NJM4560D(A) M5218P MC1495L NJM4560D(A)	IC(AM) IC(OP AMP X2) IC(OP AMP X2) IC(MULTIPLIER) IC(OP AMP X2)	
IC11 IC12 IC13 IC14 IC15,16	*	UPC78L12 LA3350S M5231TL UPC78M05H UPD4069UBC	IC(V0LTAGE REGULAT0R/ +12V) IC(FM MPX) IC(V0LTAGE REGULAT0R) IC(V0LTAGE REGULAT0R/ +5V) IC(INVERTER X6)	
IC17 IC18 IC19 IC20-22 Q1 ,2		UPD4001BC TD6104P TC9157AP UPD4013BC 3SK122(L)	IC(NOR X6) IC(PRE SCALER) IC(DIGITAL TUNING SYSTEM) IC(D FLIP-FLOP X2) FET	
Q3 -5 Q3 -6 Q6 Q8 ,9 Q8 ,9		2SK241(Y) 2SK161(GR) 2SK161(GR) 2SC2320(E _* F) 2SC945(A)(Q _* P)	FET FET FET TRANSISTØR TRANSISTØR	M ET M
010 ,11 010 ,11 012 -14 012 -14 015		25A733(A)(Q,P) 25A999(E,F) 25C2320(E,F) 25C945(A)(Q,P) 25A733(A)(Q,P)	TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR	
015 016 016 017 017		2SA999(E,F) 2SC2320(E,F) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA999(E,F)	TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR	
018 018 019 019 020 ,21		2SC232D(E,F) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA999(E,F) 2SK246(Y,GR)	TRANSISTØR TRANSISTØR TRANSISTØR TRANSISTØR FET	
022 ,23 022 ,23 024 -27 024 -27 028		2SC2320(E,F) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA999(E,F) 2SK246(Y,GR)	TRANSISTØR TRANSISTØR TRANSISTØR TRANSISTØR FET	

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Q29 Q30 -32 Q30 -32 Q33 ,34 Q33 ,34			2SK364(GR.BL) 2SC2320(E.F) 2SC945(A)(Q.P) 2SA733(A)(Q.P) 2SA999(E.F)			
035 036 ,37 036 ,37 038 ,39 040			25K364(GR,BL) 25A733(A)(Q,P) 25A797(E,F) 25D13D2(S) 25C2167(Q,Y)	FET TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
041 041 042 043 044 ,45			2SA733(A)(Q.P) 2SA999(E.F) 2SB764(E.F) 2SD863(E.F) 2SC2320(E.F)	TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR	·	
044 ,45 046 047 047 048 -51			2SC945(A)(Q,P) 2SD863(E,F) 2SC232D(E,F) 2SC945(A)(Q,P) 2SA733(A)(Q,P)	TRANSISTOR TRANSISTOR TRANSISTOR		
Q48 -51 Q52 ,53 Q54 Q54 Q55			2SA999(E,F) 2SK364(GR,BL) 2SC2320(E,F) 2SC945(A)(Q,P) 2SA733(A)(Q,P)	1		
Q55 Q56 Q56 Q57 -63 Q57 -63			2SA999(E,F) 2SC232D(E,F) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA999(E,F)			
			SUB-C	RCUIT UNIT (X13-5422-72)		
D46 D1 1	1A 1B		B30-1012-05 B30-0431-05	LED(SLP-981C-50)TUN L0,PRE FUN LED(LN21CPH) AUT0		
C1 -3 C4 .5 C8 C9 C11			C91-0757-05 C91-0769-05 C90-0482-05 C90-0822-05 CE04KW1H2R2M	CERAMIC ' 0.001UF K CERAMIC 0.01UF M ELECTR® 4.7UF 25WV ELECTR® 47UF 16WV ELECTR® 2.2UF 50WV		
C12 C13 C14 C15 C16			CE04KW1E470M CF92FV1H104J C90-1332-05 CE04KW1H2R2M CE04KW1H010M	ELECTR® 47UF 25WV MF 0.10UF J NP-ELEC 10UF 25WV ELECTR® 2.2UF 50WV ELECTR® 1.0UF 50WV		
017 018 -20 025			CE04KW1H2R2M CF92FV1H104J CE04JW1V100M	ELECTR® 2.2UF 50WV MF 0.10UF J ELECTR® 10UF 35WV		
CP1 CP2 VR1 VR2 VR3	1A	*	R90-0441-05 R90-0416-05 R13-3040-05 R12-1067-05 R12-3099-05	MULTI-COMP 10KX9 J 1/6W MULTI-COMP 10KX13 J 1/6W POTENTIOMETER(QUIETING CONTROL TRIMMING POT. (2.2K)T-METER TRIMMING POT. (47K) S-METER		
VR4 VR5		*	R12-3096-05 R10-9003-05	TRIMMING POT. (10K) DEVIATION POTENTIOMETER(AM IF BAND)		

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S1 -19 S22 ,23 S24 S25	1A.1B 1C 1B 1B		\$40-1064-05 \$31-2072-05 \$40-4061-05 \$40-2193-05	PUSH SWITCH SLIDE SWITCH (FM,CHANNEL SPACE PUSH SWITCH (POWER) PUSH SWITCH (PROGRAM)	М	
PH1			T95002405	NPTN ISNLATOR	!	
D1 D2 ,3 D7 ,8 D12 D16 ,17		*	RD12ES(B2) 1SS133 1SS133 1SS133 1SS133	DIODE DIODE DIODE DIODE		
D18 D18 D20 ,21 FL1 IC1	1A	*	HZS2. 7N(B) RD2. 7ES(B) 1SS133 CP5185GR LB1494	ZENER DIØDE ZENER DIØDE DIØDE FLUØRESCENT INDICATØR TUBE IC(DC LEVEL METER)		
IC2 IC3 IC4 ,5 IC6 IC7			LB1473 BA668A LB1290 TD6301AP UPD4001BC	IC(1 NF 16PT LED DRIVER) IC(12PT FL PEAK LEVEL METER DR IC(8CH TRANSISTNR ARRAY) IC(FL/LED/LCD FREQ DISPLAY DR) IC(NNR X6)		
IC8 IC9 IC10 Q1 Q2 ,3			UPD4013BC AN6562 UPD4001BC 2SC945(A)(Q,P) 2SC945(A)(Q,P)	IC(D FLIP-FL®P X2) IC(®P AMP X2) IC(N®R X6) TRANSIST®R TRANSIST®R		
Q6 •7			2SC945(A)(Q,P)	TRANSIST®R		
	1	,		(X86-1022-72)	1	1
C1 -6 C7 C8 -12 C13 C14 -18		* * * * *	C93-0012-05 CK41FB1H221K C93-0012-05 CK41FB1H221K C93-0012-05	CYLND CHIP C 0.01UF M CYLND CHIP C 220PF K CYLND CHIP C 0.01UF M CYLND CHIP C 220PF K CYLND CHIP C 0.01UF M		
C19 C20 ,21 C22 ,23 C24 C25 ,26		* *	CEO4KWOJ471M CC41F SL1H330J CK73EB1E473K CC41FUJ1H130J C93-0012-05	ELECTR® 470UF 6.3WV CYLND CHIP C 33PF J CHIP C 0.047UF K CYLND CHIP C 13PF J CYLND CHIP C 0.01UF M		
C27 C28 C29 -33 C34 C35		* *	C009FS1H271J CC41FSL1H220J C93-0012-05 C93-0013-05 CE04KW1H010M	POLYSTY 270PF J CYLND CHIP C 22PF J CYLND CHIP C 0.01UF M CERAMIC 22000PF 25WV ELECTRO 1.0UF 50WV		
C36 -40 C41 C42 C43 C44		*	C93-0012-05 CE04KW1HR47M C90-1334-05 CC41FSL1H020C C90-1334-05	CYLND CHIP C 0.01UF M ELECTR® 0.47UF 50WV NP-ELEC 47UF 10WV CYLND CHIP C 2.0PF C NP-ELEC 47UF 10WV		
C45 ,46 C48 -51 C54 ,55 C56 C57		*	CF92FV1H102J CF92FV1H102J CE04KW1A470M C93-0012-05 C93-0013-05	MF 1000PF J MF 1000PF J ELECTR® 47UF 10WV CYLND CHIP C 0.01UF M CERAMIC 22000PF 25WV		
	1	*	CK41FA1H101K	CYLND CHIP C 100PF K		

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S: South Africa <u>UE</u>: AAFES(Europe) T: England U: PX(Far East, Hawaii)

× New Parts

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Ref. No.	Address Ne		Description	Desti- Re- nation marks
参照番号	位置新		部品名/規格	仕 向 備考
C59 C61 -62	k k	CK41FY1E102M C93-0012-05	CYLND CHIP C 1000PF M CYLND CHIP C 0.01UF M	
CF1 -4 CF1 -4 L1 ,2 L3 L4	k	L40-1092-16	CERAMIC FILTER CERAMIC FILTER FERRITE CORE SMALL FIXED INDUCTOR(1UH, M) FERRITE CORE	ET M
L5 L6 ,7 L8 L9 L10	k	L39-0128-05 L30-0435-05	SMALL FIXED INDUCTOR(1UH,M) FERRITE CORE PEAKING COIL FM IFT FERRITE CORE	
L11 L12 L13 L14	k c		FM IFT FM 0SCILLATING C0IL FERRITE C0RE SMALL FIXED INDUCTOR(10UH,K)	
- R1 •2 R3 R4	k 20	1	CLYND CHIP R O 0HM JUMPER WIRE (RESISTOR TYPE) CYLND CHIP R 330 J 1/8W CYLND CHIP R 820 J 1/8W CYLND CHIP R 130 J 1/8W	м
R4 R5 R6 ,7 RB ,9 R10	× ×	RD41FB2B102J	CYLND CHIP R 220 J 1/8W CYLND CHIP R 1. OK J 1/8W CYLND CHIP R 1. 3K J 1/8W CYLND CHIP R 1. OK J 1/8W CYLND CHIP R 560 J 1/8W	ET
R11 R12 R13 R13 R14		RD41FB2B102J RD41FB2B821J RD41FB2B100J RD41FB2B220J RD41FB2B131J	CYLND CHIP R 1.0K J 1/8W CYLND CHIP R 820 J 1/8W CYLND CHIP R 10 J 1/8W CYLND CHIP R 22 J 1/8W CYLND CHIP R 130 J 1/8W	M ET M
R14 R15 R16 ,17 R18 ,19 R20		RD41FB2B221J RD41FB2B102J RD41FB2B132J RD41FB2B102J RD41FB2B221J	CYLND CHIP R 220 J 1/8W CYLND CHIP R 1.0K J 1/8W CYLND CHIP R 1.3K J 1/8W CYLND CHIP R 1.0K J 1/8W CYLND CHIP R 220 J 1/8W	ET
R21 R22 R23 R23 R24		RD41FB2B561J RD41FB2B362J RD41FB2B100J RD41FB2B220J RD41FB2B331J	CYLND CHIP R 560 J 1/8W CYLND CHIP R 3,6K J 1/8W CYLND CHIP R 10 J 1/8W CYLND CHIP R 22 J 1/8W CYLND CHIP R 330 J 1/8W	ET M ET
R28 R29 R30 R31 ,32 R33	1	RD41FB2B104J RD41FB2B471J RD41FB2B104J RD41FB2B105J RD41FB2B101J	CYLND CHIP R 100K J 1/8W CYLND CHIP R 470 J 1/8W CYLND CHIP R 100K J 1/8W CYLND CHIP R 1.0M J 1/8W CYLND CHIP R 100 J 1/8W	
R34 R35 R36 -41 R42 R43		RD41FB2B102J RD41FB2B472J RD41FB2B102J RD41FB2B224J RD41FB2B102J	CYLND CHIP R 1.0K J 1/8W CYLND CHIP R 4.7K J 1/8W CYLND CHIP R 1.0K J 1/8W CYLND CHIP R 220K J 1/8W CYLND CHIP R 1.0K J 1/8W	
R44 R45 R47	1 1	RD41FB2B221J RD41FB2B123J RD41FB2B472J	CYLND CHIP R 220 J 1/8W CYLND CHIP R 12K J 1/8W CYLND CHIP R 4.7K J 1/8W	

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参照番号	位 置	Parts 新	部品番号	部	品	名/規	格			備考
R48 R49 R50 R51 R52		*	RD41FB2B105J RD41FB2B223J RD41FB2B222J RD41FB2B332J RD41FB2B223J	CYLND CHIP CYLND CHIP CYLND CHIP CYLND CHIP CYLND CHIP	R R R	22K 2. 2K 3. 3K	J J J J	1/8W 1/8W 1/8W 1/8W 1/8W		
R54 R55 R56 R57 R58		* *	RD41FB2B101J RD41FB2B331J RD41FB2B223J RD41FB2B473J RD41FB2B223J	CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF	R R R	330 22K 47K	J J J	1/8W 1/8W 1/8W 1/8W 1/8W		
R59 ,60 R61 R62 ,63 R64 R65		* *	RD41FB2B513J RD41FB2B223J RD41FB2B513J RD41FB2B113J RD41FB2B223J	CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF	P R	22K 51K 11K	J J J	1/8W 1/8W 1/8W 1/8W 1/8W		
R66 ,67 R68 ,69 R70 ,71 RBO RB1		*	RD41FB2B513J RD41FB2B223J RD41FB2B513J RD41FB2B273J RD41FB2B223J	CYLND CHIR CYLND CHIR CYLND CHIR CYLND CHIR CYLND CHIR	R R R	22K 51K 27K]]]]	1/8W 1/8W 1/8W 1/8W 1/8W		•
R82 R83 R84 R85 R86		*	RD41FB2B822J RD41FB2B123J RD41FB2B223J RD41FB2B105J RD41FB2B223J	CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF	? R ? R ? R	12K 22K 1.OM		1/8W 1/8W 1/8W 1/8W 1/8W		
R87 R88 R9093 R94 R95		*	RD41FB2B393J RD41FB2B102J RD41FB2B103J RD41FB2B222J RD41FB2B103J	CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF	P R P R	1.0K 10K 2.2K]]]	1/8W 1/8W 1/8W 1/8W 1/8W		
R96 R97 R98 R98 R99		*	RD41FB2B222J RD41FB2B103J RD41FB2B123J RD41FB2B333J RD41FB2B102J	CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF CYLND CHIF	? R ? R ? R	10K 12K 133K	J	1/8W 1/8W 1/8W 1/8W 1/8W	ET M	
R100 R101 R102 R102 R103		*	RD41FB2B222J RD41FB2B103J RD41FB2B153J RD41FB2B472J RD41FB2B102J	CYLND CHII CYLND CHII CYLND CHII CYLND CHII	? R ? R	10K 15K 4.7K	J J	1/8W 1/8W 1/8W 1/8W 1/8W	M ET	
R104 R105 R106 R107 R107			RD41FB2B222J RD41FB2B103J RD41FB2B561J RD41FB2B223J RD41FB2B822J	CYLND CHIR CYLND CHIR CYLND CHIR CYLND CHIR CYLND CHIR	2 R	10K 560 22K	J J J		M ET	
R108 R109 R110 R111 R111,112		*	RD41FB2B222J RD41FB2B103J RD41FB2B222J RD41FB2B332J RD41FB2B103J	CYLND CHINCYLND CHINCYLND CHINCYLND CHINC	• R • R	10K 2.2K 3.3K	_	1/8W 1/8W	ET M	
R112 R113 R124 R124 R125,126		* *	RD41FB2B103J RD41FB2B561J RD41FB2B100J RD41FB2B220J RD41FB2B472J	CYLND CHI CYLND CHI CYLND CHI CYLND CHI CYLND CHI	P R	: 560 ? 10 : 22	J		ET M ET	

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R127 R128 R129 R132-135 R136,137		* * *	RD41FB2B101J RD41FB2B154J RD41FB2B105J RD41FB2B104J RD41FB2B105J	CYLND CHIP R 100 J 1/8W CYLND CHIP R 150K J 1/8W CYLND CHIP R 1.0M J 1/8W CYLND CHIP R 100K J 1/8W CYLND CHIP R 1.0M J 1/8W	Andrew William Co.
VR1 VR2 VR3 VR4 +5 VR6			R12-1070-05 R12-5048-05 R12-1073-05 R12-3101-05 R12-1070-05	TRIMMING POT.(1K) AUTO STOP TRIMMING POT.(100K)ST.NARROW TRIMMING POT.(4.7K)DET TRIMMING POT.(22K) MONO,STEREO TRIMMING POT.(1K) MONO	
VR7			R12-3101-05	TRIMMING POT. (22K) STEREO	
D1 -4 D5 ,6 D7 ,8 D9 ,10 D11		*	155184 RL5-73 155226 KV1320-2 RD5. 1M(B2)	DIØDE DIØDE DIØDE VARIABLE CAPACITANCE DIØDE ZENER DIØDE	
D12 IC1 -3 IC4 IC5 IC6		*	RLS-73 BA401 UPC1163HA LA1231NS NJM4560D(A)	DIODE IC(FM IF) IC(IF AMP) IC(FM IF/DETECTION) IC(OP AMP X2)	
ICB ,9 IC11-14 Q1 Q3 ,4 Q5 -7		*	NJM4200D M5218P 2SK302(Y,GR) 2SK211(Y,GR) 2SK425(X16,X17)	IC(NP AMP X2) IC(NP AMP X2) FET FET FET	

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Specification

- EIA -

	[FM tuner section]		
		DISTANCE	DIRECT
	Usable sensitivity	10.8 dBf	31.2 dBf
	·	(0.95 μV)	(10 μV)
ť	50dB quieting sensitivity		
	Mono	16.2 dBf	36.3 dBf
		(1.8 μV)	(18 μV)
	Stereo	38.8 dBf	58.8 dBf
•		(24 μV)	(240 μV)
	Signal to noise ratio (85 dBf)		
	Mono	92 dB	
	Stereo	86 dB	
	Total harmonic distortion	WIDE	NARROW
	Mono: 100 Hz	0.009%	0.05%
	1,000Hz	0.005%	0.04%
	50 Hz ~ 10,000 Hz	0.015%	0.1%
	Stereo: 100 Hz	0.02%	0.3%
	1,000 Hz	0.008%	0.06%
	50 Hz ~ 10,000 Hz	0.05%	0.3%
	Capture ratio	1.0 dB	2.5 dB
	Alternate channel selectivity (\pm 400 k Hz)	70 dB	100 dB
	Stereo separation		
	1,000 Hz	70 dB	55 dB
	50 Hz ~ 10,000 Hz	50 dB	45 dB
	15,000 Hz	45 dB	40 dB
	Frequency response	20 Hz to 15 kl	-lz
		+0.5 dB, -0.5	dΒ
	Spurious rejection ratio	100 dB	
	Image rejection ratio	80 dB	
	IF rejection ratio	110 dB	
	AM suppression ratio	70 dB	
	Subcarrier suppression ratio	70 dB	
	Antenna impedance	75 ohms unba	
	Tuning frequency range	87.5 MHz to 1	08 MHz
	Output level at 1 kHz 100% dev.		
	Fixed	0.6V/1.7 k Ω	

[AM tuner section]

Usable sensitivity S/N ration: 1 mV input Image rejection ratio	10 μV (250 μV 52 dB 40 dB	//m)
	WIDE	NARROV
Total harmonic distortion	0.4%	0.6%
Selectivity	25 dB	50 dB
[General]		
Power consumption	18 W	
Dimensions	W: 440 mm (17-5/16")
	H: 88 mm (3-	15/32")
	D: 331 mm (1	3-1/16")
Weight (Net)	4.6 kg (10.2 lt	o)

- IEC/NF -

[FM tuner section]

[FM tuner section]		
Sensitivity (DIN)		
Mone: S/N 26 dB, 40 kHz dev	0.9 <i>μ</i> .V	
Stereo: S/N 46 dB, 46 kHz dev	20 μ V	
Limiting level -3 dB point,		
40 kHz dev	0.45 μV	
Frequency response	20 Hz ~ 15 kl	$Hz \pm 0.5 dB$
Total harmonic distortion	WIDE	NARROW
Mono: 1 kHz, 40 kHz dev	0.02%	0.06%
Stereo: 1 kHz, 46 kHz dev	0.1%	0.35%
S/N weighted		
Mone: 40 kHz dev., 1 mV input	82 dB	
Stereo: 46 kHz dev., 1 mV input	67 dB	
S/N unweighted		
Mono: 40 kHz dev., 1 mV input	78 dB	
Stereo: 46 kHz dev., 1 mV input	67 dB	
FM Stereo separation: 1 mV input (DIN)	WIDE	NARROW
250 Hz	50 dB	45 dB
1 kHz	50 dB	45 dB
6.3 kHz	40 dB	35 dB
12.5 kHz	35 dB	30 dB
Image rejection ratio	80 dB	
IF rejection ratio	110 dB	
AM suppression ratio	70 dB	
Spurious rejection ratio	100 dB	
	WIDE	NARROW
Capture ratio	2.0 dB	3.5 dB
Subcarrier suppression ratio		
19 kHz: 46 kHz dev		
38 kHz: 46 kHz dev	68 dB	
Alternate channel selectivity	WIDE	NARROW

± 300 kHz (DIN) 55 dB

[AM tuner section]

Usable sensitivity	10 μV (250 μV/m)	
S/N ration: 1 mV input	52 dB	
Image rejection ratio	40 dB	
	WIDE	NARROW
Total harmonic distortion	0.4%	0.6%
Selectivity (IHF)	25 dB	50 dB
[General]		
Power consumption	18 W	
Dimensions	W: 440 mm	
	H: 88 mm	
	D: 331 mm	
Weight (Net)	4.6 kg	
Note:		
We follow a policy of continuous advancemen	ts in developm	ent. For this rea
son specifications may be changed without no	otice.	

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

80 dB

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